PERIODIC REVIEW REPORT

FRANKLIN CLEANERS SITE ROCKVILLE CENTRE, NEW YORK

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION ALBANY, NEW YORK

Prepared by:

DVIRKA AND BARTILUCCI CONSULTING ENGINEERS WOODBURY, NEW YORK

AUGUST 2011



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August 9, 2011

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Re: Franklin Cleaners Site (Site No. 1-30-050) D&B Work Assignment No. D004446-01 Periodic Review Report D&B No. 2531-08

Dear Mr. Gardner:

Enclosed, please find one hard copy and one electronic copy of the Final Periodic Review Report (PRR) for the Franklin Cleaners site. As you are aware, the initial draft Franklin Cleaners PRR was submitted to your predecessor in June 2009 and updated based on comments received from the Department in June 2010.

An updated draft was submitted to you on June 29, 2011 and your comments were received on July 25, 2011. As such, this Final PRR addresses all received NYSDEC comments.

For your information, a general timeline and some background information regarding the schedule for the development of the Franklin PRR are provided below.

The New York State Department of Environmental Conservation (NYSDEC) initially requested that Dvirka and Bartilucci Consulting Engineers (D&B) develop PRRs for both the Franklin Cleaners and Active Industrial sites in November 2007. As PRRs were not required by the NYSDEC prior to this time, the NYSDEC requested that the review period extend from when D&B assumed Operation and Maintenance (O&M) responsibilities for each site (September 2004 for Franklin Cleaners and February 2005 for Active Industrial), through the end of 2007. A draft Active Industrial PRR was initially submitted to the Department in August 2008 and after some discussion with the NYSDEC (primarily regarding formatting), a second draft Active Industrial PRR was submitted in December 2008.

Dvirka and Bartilucci

CONSULTING ENGINEERS

Mr. David Gardner **Division of Environmental Remediation** New York State Department of Environmental Conservation August 9, 2011

Initially, the Department requested that D&B postpone the development of the Franklin Cleaners PRR until such time as the Department provided comments on the Active Industrial PRR to D&B. In this way, any applicable comments could also be incorporated into the Franklin Cleaners PRR. However, as the Active Industrial PRR review process was taking longer than anticipated, the NYSDEC requested that D&B develop the draft Franklin Cleaners PRR prior to completion of their review of the draft Active Industrial PRR. As such, the draft Franklin Cleaners PRR was submitted in June 2009.

D&B received NYSDEC comments on the draft Franklin Cleaners PRR in June 2010, at which time the NYSDEC requested that the performance monitoring period be extended to the end of 2010. This decision resulted in the performance monitoring period for the Franklin Cleaners PRR extending from September 2004 to the end of 2010.

An updated draft PRR was submitted to the Department on June 29, 2011 and additional comments were received on July 25, 2011. The enclosed final PRR for the Franklin Cleaners site addresses all NYSDEC comments.

Going forward, it is our understanding that future PRRs will now be completed on an annual frequency, until otherwise directed by the NYSDEC.

Please do not hesitate to contact me at (516) 364-9890, Ext. 3094, if you have any questions or comments.

Very truly yours, Slapsharlan

Stephen Tauss **Project Manager**

SET(t)/j,lf Attachments cc: R. Walka (D&B) F. DeVita (D&B) P. Martorano (D&B) +2531\SET11LTR.DOC-07(R06)

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EXECUTIVE SUMMARY

The Franklin Cleaners off-site groundwater extraction and treatment system is located in the Village of Rockville Centre, Nassau County, New York, where it is actively capturing and treating the leading edge of the Franklin Cleaners chlorinated solvent plume, and discharging the treated groundwater in accordance with all applicable discharge standards. Based on evaluation of the performance, effectiveness and protectiveness of the remedy throughout this reporting period (September 2004 to December 2010) the following conclusions and associated recommendations are briefly summarized:

- <u>O&M Plan</u> The Operation and Maintenance (O&M) scope of services was performed in accordance with the requirements of the October 2003 Franklin Cleaners Site Operations and Maintenance Manual (OMM). The following O&M recommendations have been proposed in order to enhance the performance, effectiveness and protectiveness of the treatment system:
 - Repair of treatment system floor epoxy coating;
 - Reduction of treatment system equipment monitoring frequency;
 - Implementation of a preventative maintenance system for extraction wells EW-1 and EW-2;
 - Replacement of the influent flow meters; and
 - Installation of temporary wells to the south and west of the treatment system building in order to more accurately define the current location of the PCE plume.
- <u>Monitoring Plan</u> The monitoring requirements for the system were maintained throughout this reporting period in accordance with the requirements of the OMM. The following monitoring recommendations have been proposed in order to enhance the performance, effectiveness and protectiveness of the treatment system:
 - Reduction of treatment system sampling;
 - Removal of pH from laboratory sampling requirements;
 - Sampling of the treatment system effluent air at a frequency of once per quarter; and
 - Reduction of sampling frequency at several monitoring wells.
- <u>Institutional Control/Engineering Control (IC/EC) Plan</u> The ECs, as listed on the IC/EC Certification Form, are currently in place and operating in accordance with the requirements of the March 1998 Record of Decision. Institutional Controls (ICs) are not presented on the IC/EC Certification Form. Based on this information, the following recommendations are provided:

- The groundwater treatment system EC should remain in place until remedial objectives have been achieved;
- Based on the non-detect VOC concentrations downgradient of the treatment system, ICs are not recommended at this time;
- Installation of temporary wells to the south and west of the treatment system building in order to more accurately define the current location of the PCE plume; and
- The sampling frequency of the Molloy College irrigation well should be reduced to a semiannual basis.

1.0 INTRODUCTION

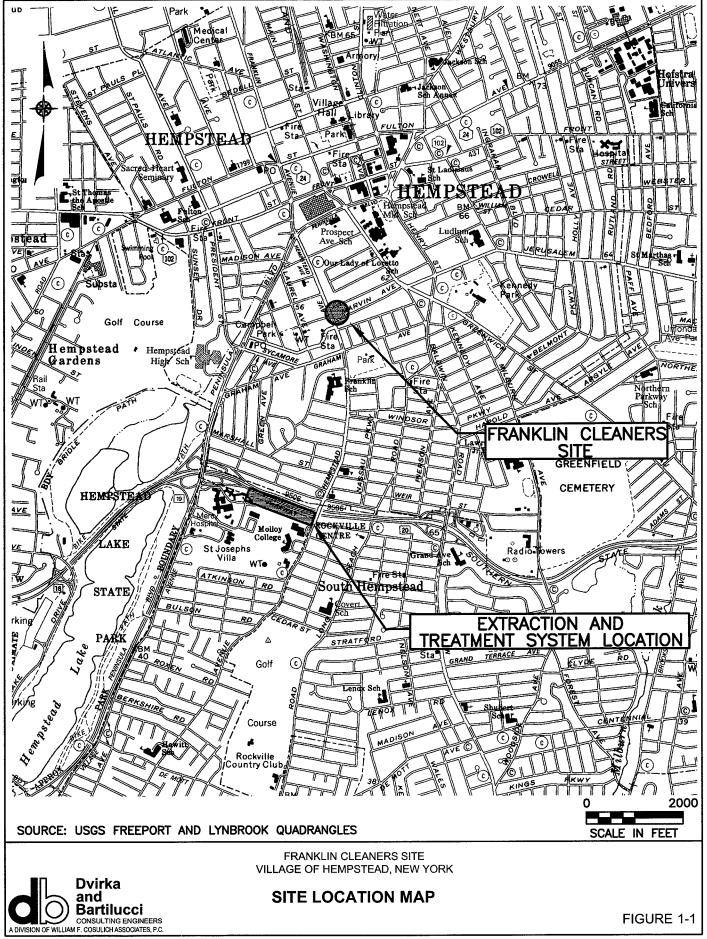
The purpose of this Periodic Review Report (PRR) is to summarize and evaluate the performance of the groundwater extraction and treatment system for the Franklin Cleaners former dry cleaner site. The FC off-site groundwater extraction and treatment system is located at 1000 Hempstead Avenue in the Village of Rockville Centre, Nassau County, New York (see Figure 1-1), approximately 1 mile downgradient of the FC former dry cleaner site located at 206-208B South Franklin Street in the Incorporated Village of Hempstead, Nassau County, New York. The information provided in this report covers the reporting period from September 2004 through December 2010.

From September 2004 through January 2010, Dvirka and Bartilucci Consulting Engineers (D&B) was responsible for operation, monitoring and reporting, with maintenance being completed by EnviroTrac Ltd under subcontract with D&B from September 2004 through October 2006 and Systematic Technologies, Inc. from November 2006 through December 2009. From January 2010 through the end of this reporting period, Environmental Assessment and Remediation (EAR), a NYSDEC call-out Contractor, was responsible for operation, monitoring and maintenance, while reporting was completed by D&B.

Note that, while the Franklin Cleaners system has been in operation since September 2004, this report represents the initial Franklin Cleaners PRR, as per direction from the NYSDEC, and encompasses the period from system start-up in September 2004 to the end of December 2010. Future PRRs will be completed on an annual frequency, until otherwise directed by the NYSDEC.

The objectives of the PRR include:

- Presenting background information;
- Identifying the remedial goals established for the site;
- Presenting a description of the treatment system components;



- Reviewing the site monitoring protocols;
- Evaluating the treatment system operation and performance; and
- Presenting findings and recommendations regarding the performance, effectiveness, and protectiveness of the treatment system and its ability to achieve the remedial goals established for the site.

The remainder of this document consists of five sections: Section 2.0 provides a site overview, including a site description, a summary of background information and remedial history; Section 3.0 presents an evaluation of remedy performance, effectiveness and protectiveness; Section 4.0 provides a cost evaluation; Section 5.0 provides a discussion of the remedy with regard to sustainable and "green" initiatives consistent with the NYSDEC DER-31 policy; and Section 6.0 provides conclusions and recommendations regarding the operation and overall performance of the system.

2.0 PROJECT BACKGROUND

2.1 Franklin Cleaners Site Operations and Description

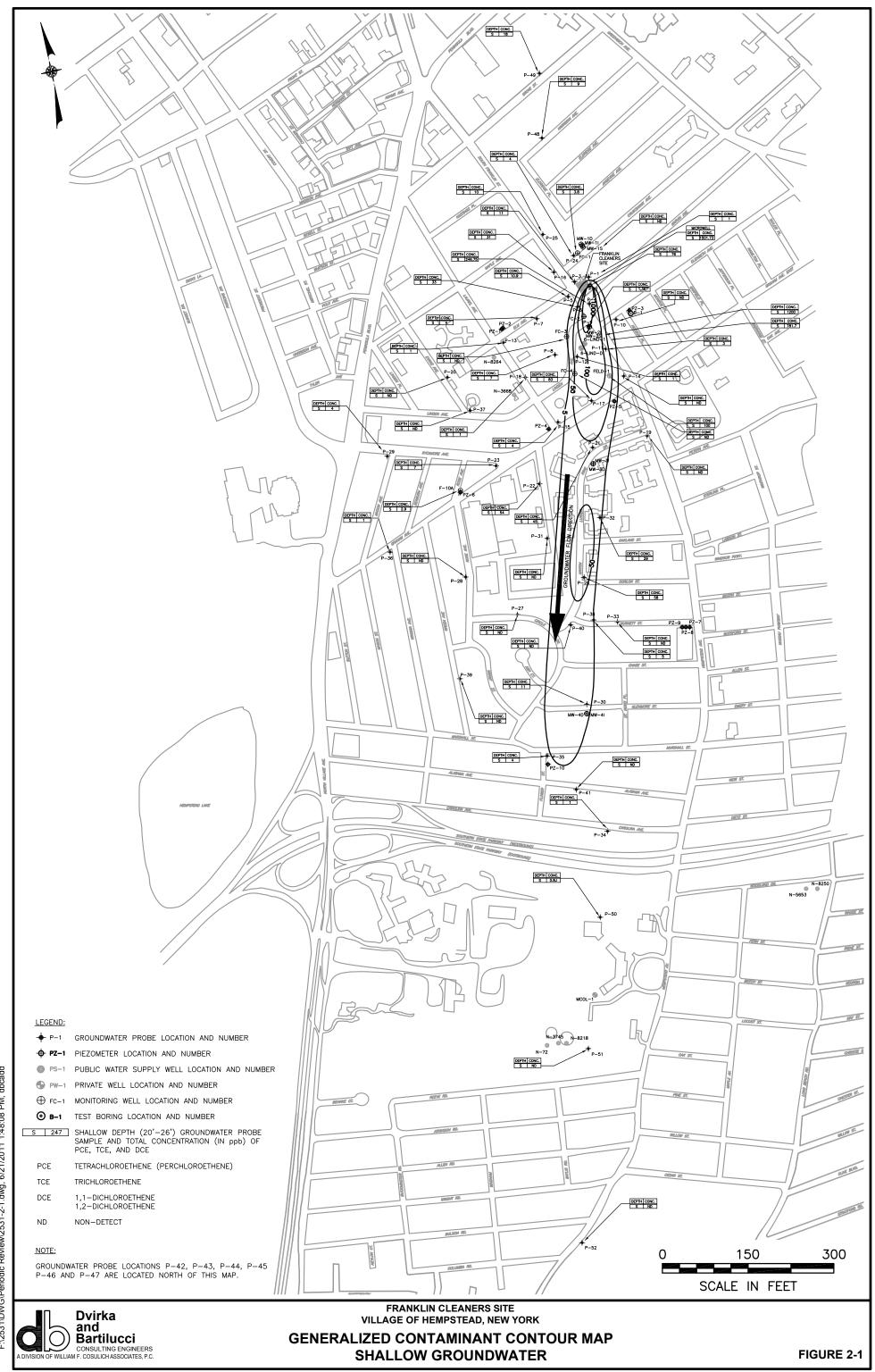
The former Franklin Cleaners dry cleaner site is a NYSDEC Class 2 Inactive Hazardous Waste Site and is listed on the New York State Registry of Inactive Hazardous Waste Sites (Site No. 1-30-050). Franklin Cleaners operated as a dry cleaner and laundromat from 1957 through 1991 and is the source of the groundwater contamination being addressed by the groundwater extraction and treatment system.

2.2 Site Impacts and Remedial History

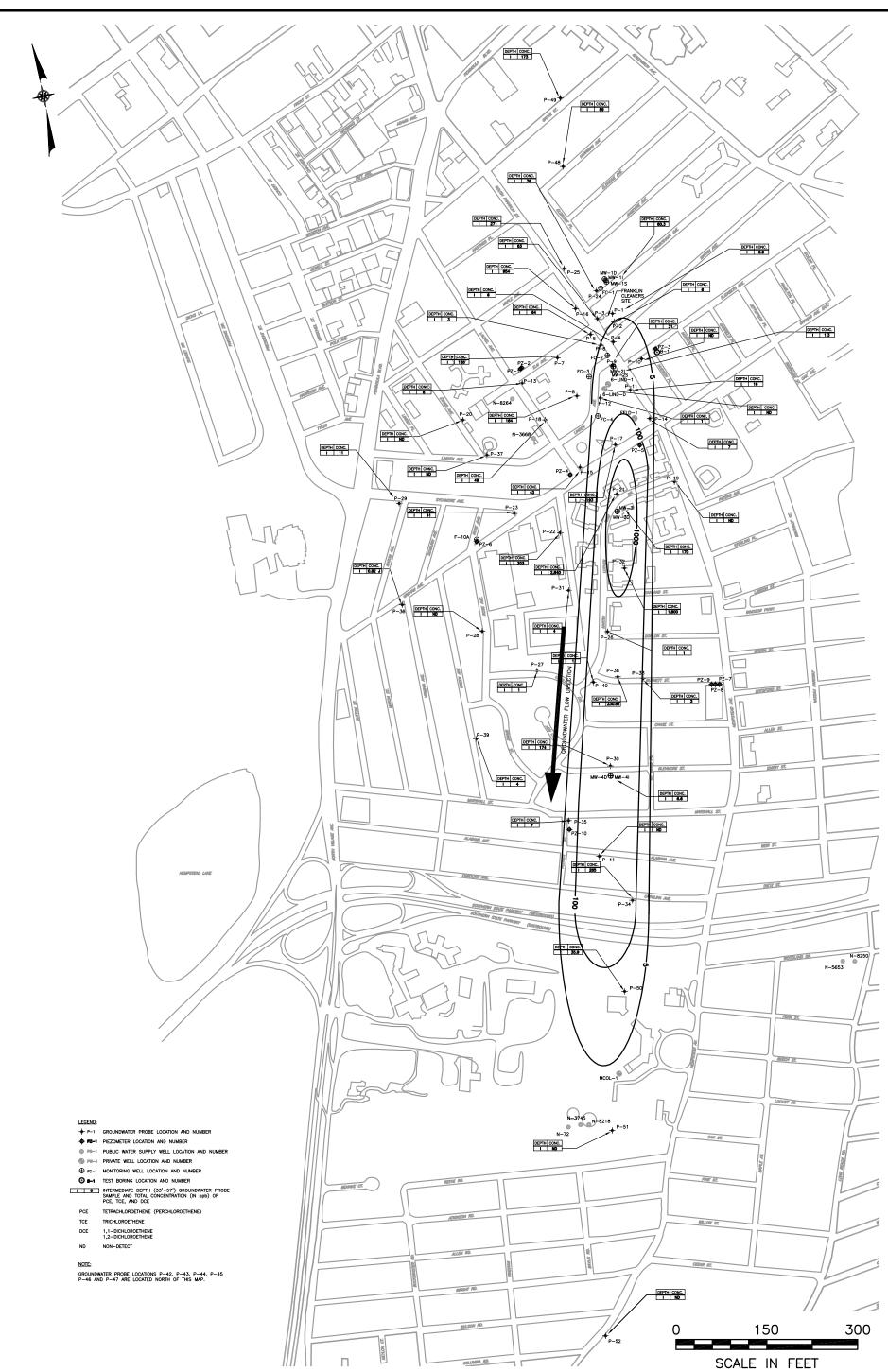
Based on complaints of tainted drinking water associated with a private well located downgradient of the former dry cleaner site, a Preliminary Site Assessment and a follow-up Remedial Investigation (RI) were completed at the site in 1993 and 1997, respectively. These investigations identified significant concentrations of tetrachloroethylene (PCE) in on-site soil, groundwater and indoor air, and a narrow plume of chlorinated-VOCs, comprised predominantly of PCE, extending from the site in a southerly direction.

Contour maps depicting contaminant concentrations in shallow (20'-26' below ground surface [bgs]), intermediate (35'-57' bgs) and deep (49'-87' bgs) groundwater, as presented in the RI Report, are provided as Figures 2-1, 2-2 and 2-3, respectively. A more current plume depiction is presented on Figure 3-1, provided in Section 3.0.

Due to the depth of groundwater and the absence of contaminated soil in the vicinity of the treatment system building and leading edge of the plume, VOCs in soil vapor are not expected at this site. As such, soil vapor sampling has not been undertaken in this area.



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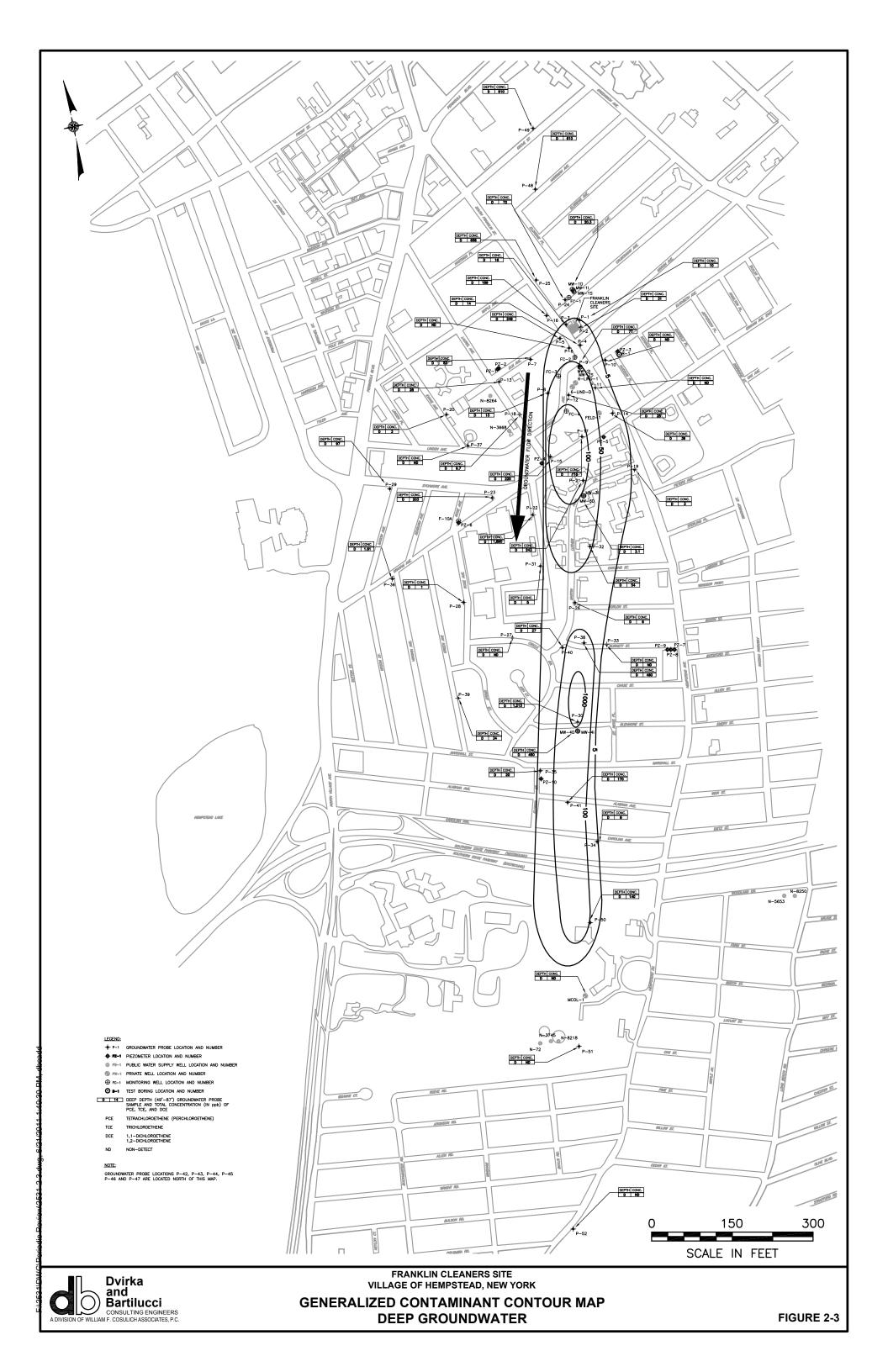
Dvirka

and A DIVISION OF WILLIAM F. COSULICH ASSOCIATES, P.C.

FRANKLIN CLEANERS SITE VILLAGE OF HEMPSTEAD, NEW YORK

GENERALIZED CONTAMINANT CONTOUR MAP INTERMEDIATE GROUNDWATER

FIGURE 2-2



2.3 Record of Decision

Based on the findings of the RI, the NYSDEC issued a Record of Decision (ROD) in March 1998. In order to eliminate or mitigate threats to human health and the environment, the NYSDEC selected the following on-site and off-site remedies:

- 1. Installation of an off-site groundwater extraction and treatment system to recover contaminated groundwater at the leading edge of the contaminant plume for up to 20 years. The system shall include: treatment of water through the use of chemical precipitation and filtering of metals; air stripping of VOCs; and GAC treatment of off-gases, if necessary;
- 2. Soil vapor extraction (SVE) of PCE-contaminated soil with on-site treatment of contaminated vapors using a vapor phase granular activated carbon (GAC) treatment system;
- 3. Installation of a deep off-site irrigation/monitoring well located at Molloy College;
- 4. Air sparging of shallow on-site groundwater and capture of PCE vapors by the SVE system;
- 5. Off-site disposal of all spent carbon at a Toxic Substance Control Act (TSCA) and Resource Conservation and Recovery Act (RCRA)-permitted incinerator;
- 6. Long-term groundwater monitoring and groundwater use restrictions, as necessary; and
- 7. Control of indoor air contamination using air purifying, ventilation and vapor barrier systems along with a monitoring program until the source area remediation has been effectively completed.

In response to Item No. 1 of the ROD, a pre-design investigation was completed by D&B from July 1999 through December 2000. Based on the results of the pre-design investigation, and as detailed below, D&B prepared remedial construction drawings and specifications for the construction of an on-site soil vapor extraction/air sparge (SVE/AS) system and an off-site groundwater extraction and treatment system at the leading edge of the VOC plume extending from the site. The groundwater extraction and treatment system was constructed at the leading edge of the plume and placed into operation in September 2003. The groundwater extraction and treatment system is still an active component of the selected remedy.

Item Nos. 2, 4 and 7 of the ROD were completed as part of the on-site remedial actions. The on-site SVE/AS system was constructed and placed in operation in September 2003. The SVE/AS system was operated for approximately 2.5 years, at which point confirmatory on-site soil, groundwater and indoor air samples demonstrated that the remedial objectives of the system had been achieved. Based on these sample results, the NYSDEC decommissioned the SVE/AS system in March 2007. Additional details regarding the system operation and decommissioning are provided in the draft Final Remediation Report for the Franklin Cleaners On-Site SVE/AS System, dated June 2009.

In response to Item No. 3 of the ROD, a new deep irrigation well (ASMW-7) was installed at Molloy College in December 2004, and is currently being sampled as part of routine ground water sampling activities at the site. Based on available information, Molloy College has not used ASMW-7 for irrigation since its installation and has no current plans to utilize the well for any purpose.

In response to Item No. 5 of the ROD, all spent carbon is sampled, characterized, managed and disposed off-site in accordance with all applicable federal, state and local regulations. The sampling, characterization, management and disposal of spent carbon are still an active component of the selected remedy.

In response to Item No. 6 of the ROD, groundwater monitoring within the vicinity and downgradient of the groundwater extraction and treatment system was initiated after construction of the groundwater extraction and treatment system in September 2003. Groundwater monitoring is still an active component of the selected remedy. In addition, based on a records search, there are currently no use restrictions placed on groundwater at or in the immediate downgradient area of the site (Molloy College). As stated above, based on available information, groundwater is not used for any purpose at Molloy College or at the Franklin Cleaners site.

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3.0 OPERATION AND MAINTENANCE (O&M) PLAN COMPLIANCE

3.1 O&M Plan Requirements and Compliance Status

The O&M scope of services for the Franklin Cleaners groundwater extraction and treatment system consists of general facility maintenance activities, routine treatment system maintenance activities, non-routine treatment system maintenance activities and system alarm/shutdown activities, in accordance with the requirements of the October 2003 Franklin Cleaners Site Operations and Maintenance Manual (OMM).

Presented below is a summary of the O&M activities performed throughout the reporting period.

General Facility Maintenance

General facility maintenance work items are those tasks which involved the maintenance and upkeep of the treatment system facility, as well as groundskeeping of the treatment building property. Facility maintenance activities completed during this reporting period include:

- Snow removal services;
- Replacement of bulbs for emergency and area lighting;
- Cleaning of the air stripper inlet vent screen;
- Cleaning of the building louver inlet vent screen;
- Removal of overgrown vegetation;
- Replenishment of expendable O&M supplies; and
- General facility housekeeping.

Routine Treatment System Inspection and Maintenance Activities

Routine treatment system inspection and maintenance activities completed during this reporting period include:

- Weekly performance monitoring of treatment system equipment (extraction well pumps, low profile air stripper, air stripper blower and vapor phase carbon vessels);
- Weekly inspection of all equipment, piping, flanges, valves, instruments, etc. for leakage, unusual noise and proper working condition;
- Once per every other month inspection and routine preventive maintenance of the pressure blower unit;
- Yearly inspection and maintenance of the wet well pumps;
- As-needed disassembly, cleaning and reassembling of the low-profile air stripper unit based on total pressure loss through the air stripper; and
- As-needed removal and replacement of the granular activated carbon (GAC) in the carbon adsorption vessels based on total VOC readings utilizing a PID at the vessel outlets.

A summary of the routine treatment system inspection and maintenance services and their typical frequencies of completion is provided on Table 3-1. Overall, the treatment system was non-operational for approximately 6 days (137 hours) throughout the reporting period as a result of routine maintenance activities.

Non-Routine Treatment System Maintenance Activities

Non-routine treatment system maintenance activities are those tasks which involve outof-scope maintenance and upkeep of the treatment system equipment. Non-routine maintenance events, associated downtime and the current status and/or resolution associated with each activity is summarized on Table 3-2. Copies of the treatment system shutdown logs, which include details of the non-routine maintenance activities which have occurred throughout the reporting period, are provided in Appendix A and copies of non-routine maintenance reports are provided in Appendix B.

TABLE 3-1 FRANKLIN CLEANERS SITE NYSDEC SITE No. 1-30-050

ROUTINE INSPECTION AND MAINTENANCE SERVICES SUMMARY

	Frequency						
Routine Inspection/Maintenance Item	Weekly	Bi-Monthly	Annual	As-Needed			
Extraction Wells		<u>.</u>					
Flow Rate (gpm)	Х						
Total Flow (gal)	Х						
Pump Runtime (hrs)	Х						
Depth to Water Measurement (feet)	Х						
Operating Frequency (Hz)	Х						
Air Stripper							
Sump Level (in)	Х						
Fresh Air Inlet Vacuum (in H ₂ O)	Х						
Blower Suction (in H ₂ O)	Х						
Blower Discharge (in H ₂ O)	Х						
Blower Runtime (hrs)	Х						
Vapor Phase Carbon							
Lead pressure Inlet/Outlet (psi)	Х						
Lag pressure Inlet/Outlet (psi)	Х						
Exhaust Flow Rate (scfm)	Х						
Exhaust Temperature (°F)	Х						
Wet Well							
Pump No. 1 Runtime (hrs)	Х						
Pump No. 2 Runtime (hrs)	Х						
Effluent Valve Vault							
Pump No. 1 Operating Pressure (psi)	Х						
Discharge Line No. 2 Back Pressure (psi)	Х						
Pump No. 1 Flow Rate (gpm)	Х						
Pump No. 2 Operating Pressure (psi)	Х						
Discharge Line No. 1 Back Pressure (psi)	Х						
Pump No. 2 Flow Rate (gpm)	Х						
Flow Meter Vault							
Total Flow (gal.)	Х						
Jet Pump	!	ι ι		ł			
Status	Х						
Line Pressure (psi)	X						
Routine Maintenance Items		<u>ı </u>		Į			
Blower Maintenance		X					
Air Stripper Maintenance				X			
GAC Removal and Replacement				X			
Wet Well Pump Maintenance and Inspection			Х	1			

TABLE 3-2 FRANKLIN CLEANERS SITE NYSDEC SITE No. 11-30-050

SUMMARY OF NON-ROUTINE MAINTENANCE AND ASSOCIATED DOWNTIME SEPTEMBER 2004 THROUGH DECEMBER 2010

NON-ROUTINE MAINTENANCE ACTIVITY	DOWNTIME (HOURS)	STATUS/RESOLUTION
Diagnosis of high-high wet well condition and repair of associated parts	811	Diagnosis of this issue has been completed on various occasions. Diagnosis has included checking effluent pump operation, check valves, final discharge point, adjusting discharge pipes for even effluent flow, and adjustment/replacment of wet well pump floats. Replacement of the wet well pump control panel phase loss detection device in September 2010, appears to have eliminated the recurring high-high wet well alarms.
Replace malfunctioning motor starter cooling fan	101	Work has been completed.
Maintenance associated with extraction wells, including the installation of new level probe in extraction well EW-1 and removal and replacement of extraction well pump EW-2	90	Work has been completed.
Shutdown system to assess groundwater levels in monitoring wells in support of radius of influence testing	72	Activity has been completed.
Shutdown system due to high VOC concentrations detected in effluent air stream	46	May consider collecting air samples for laboratory analysis of VOCs by USEPA Method TO-15 on a periodic basis, to supplement PID analysis.
Cleaning of extraction well influent flow meter paddle wheels	24	Activity is on-going and completed as necessary; however, both flow meters are frequently not operating (registering a flow of 0.0 gpm) upon arrival at the site for weekly monitoring. Issue has not been resolved as of the end of this reporting period.
Programming and testing of treatment system auto dialer	10	Activity was completed at the initial start-up of the system and upon replacement of the auto dialer. No additional programming has been necessary since replacement of the auto dialer.
Replacement of influent flow meter T's and flow meters	7.1	Work has been completed. The flow meters are still malfunctioning. Flow meters should be replaced with a mag-style meter, as opposed to the current paddle wheel-style meter.
Replace circuit breaker for power washer	2.8	Work has been completed.
Install new wet well pump float	1.3	Work has been completed.
Cleaning of air stripper inlet air filter	1.1	Activity is on-going and completed as necessary. Activity should be included as part of routine maintenance activities.
Maintenance technician training on the operation, maintenance and monitoring and the treatment system	1.0	Activity is completed as necessary.
Diagnosis of VFD overload failure	0.4	Failure was determined to be the result of a high amperage draw from the extraction well pumps. Extraction wells were ultimately redeveloped. May consider including the monitoring of the extraction well amperage as part of routine monitoring activities.
Remove accumulated water in treatment system valve vault sump pit	0.4	Activity is completed as necessary.

Overall, the treatment system was not operational for approximately 49 days (1,169 hours) throughout this reporting period as a result of non-routine maintenance activities. As shown on Table 3-2, the majority of downtime is associated with the high-high wet well alarm. After several diagnosis events, this alarm condition was identified as being caused by a cracked phase-loss detection device, which was replaced on September 22, 2010. Following replacement of the phase-loss detection device, the system has not experienced any further high-high wet well conditions.

System Alarm/Shutdown Activities

The treatment system is equipped with an autodialer alarm notification system, which is programmed to call technicians in the event of an alarm condition. The following is a list of the current alarms for the system:

- Alarm #1 Temperature Alarm
- Alarm #2 Building Entry Alarm
- Alarm #3 General System Alarm
- Alarm #4 General Failure Submersible Pump (Wet Well) Alarm
- Alarm #5 General Failure EW-1/EW-2 Alarm
- Alarm #6 Pressure Blower Failure Alarm
- Alarm #7 High Level Air Stripper Sump Alarm
- Alarm #8 High Level Valve Vault Sump Alarm

The most frequently occurring alarm conditions and their associated downtime throughout this reporting period are summarized on Table 3-3. Overall, the treatment system was not operational for approximately 191 days (4,586 hours) throughout this reporting period as a result of treatment system alarms and shutdowns.

TABLE 3-3 FRANKLIN CLEANERS SITE NYSDEC SITE No. 11-30-050

SUMMARY OF ALARM CONDITIONS AND ASSOCIATED DOWNTIME SEPTEMBER 2004 THROUGH DECEMBER 2010

ALARM	TOTAL NUMBER OF ALARM CONDITIONS	DOWNTIME (HOURS)	PERCENT OF TOTAL ALARM SHUTDOWN TIME
General system alarm due to a high-high wet well	115	2,987	65%
Extraction well EW-1 and EW-2 failure alarm	12	1,251	27%
Pressure blower failure alarm due to a tripped circuit breaker	2	121	3%
High level air stripper sump alarm due to a broken float switch	1	112	2%
General system alarm due to power failure	2	59	1%
Extraction well EW-1 and EW-2 failure alarm due to a fault of the variable frequency drives	2	40	0.9%
General system alarm due to water accumulation in the valve vault as a result of condensation running off the air stripper	2	14	0.3%
Downtime due to failure of system to call out	1	1	0.02%

3.2 Evaluation of O&M Activities

General Facility Evaluation

Throughout the course of this reporting period, general facility maintenance activities were completed as specified in the OMM. Overall, the scope of services for general facility maintenance activities is satisfactory; however, several areas of the treatment system floor epoxy coating have begun to show wear and cracking and should be repaired.

Extraction and Treatment System Inspection and Operation Evaluation

Throughout the course of this reporting period, various routine maintenance and monitoring activities were completed in accordance with the frequencies specified in the OMM, and are summarized on Table 3-1.

An analysis of the weekly monitoring records demonstrates that the treatment system operating parameters (i.e., extraction well flow rates, blower flow rates, system operating pressures, etc.) show little variation between each weekly monitoring event. Based on this consistent performance it may be warranted to reduce the weekly monitoring requirement to a bi-weekly monitoring requirement.

A summary of the extraction and treatment system operating conditions, including average influent flow rates, average VOC removal efficiencies, estimated average removal rates, estimated system runtimes, total gallons treated as measured at the treatment system effluent flow meter and cumulative total VOC removal, is provided on Table 3-4.

As summarized on Table 3-4, the treatment system has discharged approximately 157,479,890 gallons of treated groundwater and removed approximately 42 pounds of PCE throughout this reporting period. However, note that the volume of discharged treated water, as recorded at the effluent flow meter, is not consistent with the volume of extracted water, as

TABLE 3-4 FRANKLIN CLEANERS SITE NYSDEC SITE No. 11-30-050

TREATMENT SYSTEM PERFORMANCE SUMMARY SEPTEMBER 2004 THROUGH DECEMBER 2010

	SYSTEM INFLUENT (EW-1) AVERAGE	SYSTEM INFLUENT (EW-1) PCE	SYSTEM INFLUENT (EW-2) AVERAGE	SYSTEM INFLUENT (EW-2) PCE	SYSTEM EFFLUENT (AS-1) PCE	PCE REMOVAL	ESTIMATED AVERAGE PCE	ESTIMATED SYSTEM	CUMULATIVE TOTAL	ESTIMATED CUMULATIVE PCE
DATE OF SAMPLE	EXTRACTION RATE		EXTRACTION RATE	CONCENTRATION	CONCENTRATION	EFFICIENCY	REMOVAL RATE	RUNTIME	GALLONS TREATED	REMOVAL
COLLECTION	(gpm)	(ug/l)	(gpm)	(ug/l)	(ug/l)	(%)	(lb/hr)	(hr)	(gallons)	(lbs)
										17.45 (1)
11/1/2004	35.40	35	3.00	270 D	< 0.5	99.06	1.03E-03	1554	25,857,944	19.04
11/22/2004	36.20	37	3.00	270 D	< 0.5	99.09	1.08E-03	424	27,021,341	19.95 ⁽²⁾
12/13/2004	36.30	36	3.10	68	< 0.5	98.70	7.60E-04	502	28,410,151	20.34
12/27/2004	36.00	36	2.70	260 D	< 0.5	99.03	1.00E-03	343		20.68
1/10/2005	35.80	42	3.30	370 D	< 0.5	99.28	1.36E-03	328	30.252.915	21.13
1/25/2005	36.40	38	3.10	280 D	1 J	98.25	1.13E-03	307	31,086,816	21.47
2/8/2005	36.50	32	3.00	240	< 0.5	98.95	9.45E-04	331	31,997,160	21.79
2/23/2005	36.20	44	2.80	220 D	< 0.5	99.12	1.11E-03	328	32,898,785	22.30 (2)
3/7/2005	35.8	41	2.8	290 D	< 0.5	99.15	1.14E-03	154	33.603.270	22.48
3/21/2005	36.6	34	3.0	190 D	< 0.5	98.91	9.09E-04	227	34,380,541	22.68
4/5/2005	35.8	29	3.2	190	< 0.5	98.82	8.24E-04	282	35,264,475	22.91
4/19/2005	35.6	33	2.7	210 D	< 0.5	98.90	8.72E-04	337	36,198,620	23.21
5/2/2005	36.2	31	2.6	230 D	< 0.5	98.87	8.61E-04	310	37,056,174	23.48
5/16/2005	37.0	33	2.4	220	< 0.5	98.87	8.76E-04	710	37,978,702	24.10 (2)
6/6/2005	34.7	27	2.8	190	< 0.5	98.72	7.36E-04	74	39,207,919	24.15
6/20/2005	36.9	32	2.6	150 D	< 0.5	98.74	7.87E-04	279	39,978,425	24.37
7/5/2005	35.7	26	2.5	220 E	1 J	97.42	7.19E-04	358	40,967,400	24.63
7/25/2005	36.2	26	2.2	180 D	< 0.5	98.56	6.70E-04	392	42.052.949	24.89
8/8/2005	36.2	21 B	2.7	120 B	< 0.5	98.21	5.43E-04	239	42,714,547	25.02
8/31/2005	35.3	24	2.5	180	< 0.5	98.54	6.50E-04	525	44,154,502	25.36 (2)
9/12/2005	38.0	24 21	2.3	170	< 0.5	98.33	6.04E-04	192	44,698,683	25.48
9/26/2005	37.0	26	2.4	160 D	< 0.5	98.48	6.42E-04	310	45,537,606	25.68
10/10/2005	36.5	19	2.0	160	< 0.5	98.10	5.08E-04	313	46,378,871	25.84
10/24/2005	37.4	24	2.0	150	< 0.5	98.42	6.30E-04	300	47,189,456	26.03
11/8/2005	37.4	24	2.4	190 D	< 0.5	98.63	7.40E-04	306	48.029.382	26.25
11/21/2005	37.8	26	2.0	200	< 0.5	98.56	4.92E-04 2.00E-04	136 507	48,433,917	26.42 (2)
12/5/2005	0.0	NS	1.6	170	< 0.5	99.71	1.36E-04	106	48,512,352	26.43
12/21/2005	0.0	NS	3.0	140	< 0.5	99.64	2.10E-04	241	48.576.251	26.49
1/4/2006	0.0	NS	2.8	140	< 0.5	99.72	2.52E-04	340	48,668,693	26.57
1/24/2006	0.0	NS	2.8	160	< 0.5	99.69	2.24E-04	462	48,795,078	26.67
2/6/2006	0.0	NS	2.4	160	< 0.5	99.69	1.92E-04	311	48,878,334	26.73
2/21/2006	0.0	NS	3.1	180	< 0.5	99.72	2.79E-04	425	48,945,811	26.73 (2)
3/7/2006	0.0	NS	2.9	140	< 0.5	99.64	2.03E-04	154	49,039,904	26.77
3/22/2006	0.0	NS	3.0	160	< 0.5	99.69	2.40E-04	361	49,140,805	26.85
4/3/2006	0.0	NS	2.8	82	< 0.5	99.39	1.15E-04	287	49,219,838	26.89
4/18/2006	0.0	NS	2.9	120	< 0.5	99.58	1.74E-04	363	49.323.702	26.95
5/9/2006	0.0	NS	3.1	100	< 0.5	99.50	1.55E-04	481	49,460,144	27.02
5/22/2006	0.0	NS	3.0	130	< 0.5	99.62	1.95E-04	312	49,549,892	27.08 (2)
6/5/2006	0.0	NS	2.6	120	< 0.5	99.58	1.56E-04	337	49.644.254	27.14
6/19/2006	0.0	NS	2.0	120	< 0.5	99.58	1.62E-04	327	49,044,254	27.14
7/6/2006	0.0	NS	3.1	110	< 0.5	99.55	1.71E-04	301	49,734,558	27.19
7/17/2006	0.0	NS	3.0	130	< 0.5	99.62	1.95E-04	354	49,826,007	27.24
9/12/2006	38.9	23	0.0	NS	< 0.5	99.62	4.48E-04	122	50,235,226	27.31
9/25/2006	38.6	23	0.0	NS	< 0.5	97.83	4.46E-04 4.45E-04	311	51,025,295	27.50
10/2/2006	40.2	23	0.0	NS	< 0.5	97.73	4.43E-04 4.43E-04	169	51,454,024	27.58
10/16/2006	39.8	22	0.0	NS	< 0.5	97.73	4.43E-04 4.38E-04	335	52,306,098	27.73
10/30/2006	39.2	24	0.0	NS	< 0.5	97.92	4.38E-04 4.71E-04	280	53,018,682	27.86
11/13/2006	37.8	18 B	0.0	NS	< 0.5	97.22	3.41E-04	335	53,835,839	27.97
11/28/2006	41.1	17	0.0	NS	< 0.5	97.06	3.50E-04	418	54,799,583	28.12 (2)
12/15/2006	39.3	19	0.0	NS	< 0.5	97.06	3.50E-04 3.74E-04	261	55,779,445	28.21
12/15/2006	41.2	20	0.0	NS	< 0.5	97.50	4.13E-04	309	55,779,445	28.21
1/7/2007	38.3	17	0.0	NS	< 0.5	97.50	4.13E-04 3.26E-04	309	57,363,626	28.34
1/22/2007	38.9	17	0.0	NS	< 0.5	97.06	3.26E-04 3.51E-04	289	58.101.187	28.55
2/7/2007		18	0.0	NS NS						
2/1/2007	37.9	19	0.0	GNI	< 0.5	97.37	3.61E-04	383	59,080,768	28.68

TABLE 3-4 (continued) FRANKLIN CLEANERS SITE NYSDEC SITE No. 11-30-050

TREATMENT SYSTEM PERFORMANCE SUMMARY SEPTEMBER 2004 THROUGH DECEMBER 2010

	SYSTEM INFLUENT (EW-1) AVERAGE	SYSTEM INFLUENT (EW-1) PCE	SYSTEM INFLUENT (EW-2) AVERAGE	SYSTEM INFLUENT (EW-2) PCE	SYSTEM EFFLUENT (AS-1) PCE	PCE REMOVAL	ESTIMATED AVERAGE PCE	ESTIMATED SYSTEM	CUMULATIVE TOTAL	ESTIMATED CUMULATIVE PCE
DATE OF SAMPLE	EXTRACTION RATE	CONCENTRATION	EXTRACTION RATE	CONCENTRATION	CONCENTRATION	EFFICIENCY	REMOVAL RATE	RUNTIME	GALLONS TREATED	REMOVAL
COLLECTION	(gpm)	(ug/l)	(gpm)	(ug/l)	(ug/l)	(%)	(lb/hr)	(hr)	(gallons)	(lbs)
2/23/2007	36.9	13	0.0	NS	< 0.5	96.15	2.40E-04	489	60,000,610	28.80 ⁽²⁾
3/5/2007	38.0	9 J	0.0	NS	< 0.5	94.44	1.71E-04	112	60,616,215	28.82
3/23/2007	41.1	19	0.0	NS	< 0.5	97.37	3.91E-04	431	61,720,024	28.99
4/3/2007	39.2	20	0.0	NS	< 0.5	97.50	3.93E-04	190	62.209.387	29.06
4/16/2007	40.5	17	0.0	NS	< 0.5	97.06	3.45E-04	286	62,942,742	29.16
5/2/2007	39.2	16	0.0	NS	< 0.5	96.88	3.14E-04	284	63.674.609	29.25
5/16/2007	39.5	16	0.0	NS	< 0.5	96.88	3.16E-04	336		29.36
5/29/2007	41.4	15	0.0	NS	< 0.5	96.67	3.11E-04	417	65,180,209	29.49 ⁽²⁾
6/14/2007	39.3	14	0.0	NS	< 0.5	96.43	2.76E-04	284	65,796,333	29.56
6/24/2007	39.3	5	0.0	NS	< 0.5	90.00	9.84E-05	336	66,354,455	29.60
7/10/2007	39.2	12	0.0	NS	< 0.5	95.83	2.36E-04	263	67,034,769	29.66
7/27/2007	37.7	14	0.0	NS	< 0.5	96.43	2.64E-04	182	67,978,727	29.71
8/23/2007 ⁽³⁾	38.3	17	6.5	130	< 0.5	97.35	3.26E-04 4.23E-04	191 28	68,828,979	29.78 ⁽²⁾
9/5/2007	40.0	14	6.3	53	< 0.5	93.07	4.48E-04	112	69,702,984	29.83
9/21/2007	39.0	9 J	6.3	51	< 0.5	99.06	3.37E-04	359	70,798,035	29.95
10/21/2007	38.4	10	6.1	59	< 0.5	99.18	3.73E-04	484	72,269,680	30.13
10/31/2007	39.9	14	5.9	73	< 0.5	99.40	4.95E-04	233	72,977,878	30.25
11/12/2007	39.4	15 B	5.7	80 B	< 0.5	99.46	5.24E-04	289	73,857,800	30.40
11/26/2007	38.5	13	6.0	64	< 0.5	99.32	4.43E-04	407	74,738,072	30.58 ⁽²⁾
12/10/2007	40.6	16	6.5	100	< 0.5	99.50	6.51E-04	217	75,767,066	30.72
12/27/2007	40.3	13	6.1	73	< 0.5	99.37	4.85E-04	348	76,135,710	30.89
1/7/2008	40.4	12	6.7	75	< 0.5	99.32	4.94E-04	265		31.02
1/21/2008	38.3	14	6.3	86	< 0.5	99.42	5.40E-04	327		31.20
2/7/2008	40.7	15	6.3	81	< 0.5	99.44	5.61E-04	379		31.41
2/19/2008	39.0	16	6.5	90	< 0.5	99.46	6.05E-04	524		31.73
3/3/2008	40.1	20	5.9	100	< 0.5	99.58	6.97E-04	60	81,618,012	31.77
3/17/2008	40.5	16	6.2	100	< 0.5	99.51	6.35E-04	317	82,599,562	31.97
4/2/2008	39.8	17	6.2	100	< 0.5	99.52	6.49E-04	374	83,761,490	32.21
4/18/2008	38.9	16	6.5	86	< 0.5	99.45	5.92E-04	371	84,913,281	32.43
5/1/2008	38.3	19	6.4	89	< 0.5	99.51	6.50E-04	280	85,786,429	32.62
5/13/2008	40.9	17	6.4	95	< 0.5	99.51	6.53E-04	716	86,589,796	33.08
6/5/2008	38.6	20	6.5	100	< 0.5	99.54	7.12E-04	110	88,300,105	33.16
6/23/2008	39.9	24	5.9	130	< 0.5	99.66	8.64E-04	247	89,077,350	33.37
7/10/2008	39.8	12	6.0	64	< 0.5	99.31	4.30E-04	394		33.54
7/25/2008	39.6	14	6.0	71	< 0.5	99.39	4.91E-04	327	91,357,308	33.70
8/7/2008	40.2	14	5.9	66	< 0.5	99.38	4.77E-04	279	92,240,882	33.84
8/21/2008	40.3	13	6.0	61	< 0.5	99.33	4.46E-04	510	93,193,010	34.06
9/5/2008	39.0	13	6.0	60	< 0.5	99.31	4.34E-04	110	94,204,721	34.11
9/19/2008 10/3/2008	39.6 40.1	15 12	6.1 6.1	82 51	< 0.5	99.44 99.23	5.48E-04 3.97E-04	327 338	95,242,167	34.29 34.43
10/3/2008	40.1 39.0	12	6.1	51 64	< 0.5	99.23	3.97E-04 4.14E-04	338	96,322,899 97,324,101	34.43
10/16/2008	39.0	12	5.8	45	< 0.5	99.25	4.14E-04 3.68E-04	248	97,324,101	34.55
11/12/2008	39.5	12	5.8	45 64	< 0.5	99.21	3.68E-04 4.31E-04	312	98,128,452	34.65
11/25/2008	39.9	12	6.1	80	< 0.5	99.30	4.31E-04 5.64E-04	430	100.107.981	34.78
12/9/2008	39.9	16	6.2	78	< 0.5	99.46	5.60E-04	207	100,107,981	35.02
12/24/2008	40.4	13	6.4	57	< 0.5	99.43	4.46E-04	300	101,210,879	35.27
1/8/2009	39.9	13	6.1	53	< 0.5	99.28	4.46E-04 4.02E-04	361	102,199,351	35.27
1/19/2009	40.3	12	6.1	61	< 0.5	99.24	4.69E-04	269	103,387,733	35.54
2/2/2009	40.3	12	6.1	56	< 0.5	99.35	4.09E-04 4.13E-04	323	104,272,837	35.68
2/26/2009	39.1	12	5.6	69	< 0.5	99.20	5.07E-04	581	105,336,797	35.97
3/11/2009	40.1	18	5.7	92	< 0.5	99.45	6.24E-04	253	107,073,275	35.97
3/25/2009	40.1 39.0	16	5.7	92	< 0.5	99.54	5.09E-04	335	108,085,495	36.30
4/8/2009	39.0	16	5.3	61	< 0.5	99.48	5.09E-04 4.76E-04	335	110,305,211	36.30
4/24/2009	40.4	13	5.2	61	< 0.5	99.44	4.76E-04 4.22E-04	277	111,226,811	36.58
5/5/2009	39.5	13	5.2	63	< 0.5	99.38	4.22E-04 4.81E-04	186	111,847,362	36.58

TABLE 3-4 (continued) FRANKLIN CLEANERS SITE NYSDEC SITE No. 11-30-050

TREATMENT SYSTEM PERFORMANCE SUMMARY SEPTEMBER 2004 THROUGH DECEMBER 2010

	SYSTEM INFLUENT		SYSTEM INFLUENT		SYSTEM EFFLUENT		ESTIMATED	ESTIMATED		ESTIMATED
	(EW-1) AVERAGE	(EW-1) PCE	(EW-2) AVERAGE	(EW-2) PCE	(AS-1) PCE	PCE REMOVAL	AVERAGE PCE	SYSTEM	CUMULATIVE TOTAL	CUMULATIVE PCE
DATE OF SAMPLE	EXTRACTION RATE	CONCENTRATION	EXTRACTION RATE	CONCENTRATION	CONCENTRATION	EFFICIENCY	REMOVAL RATE	RUNTIME	GALLONS TREATED	REMOVAL
COLLECTION	(gpm)	(ug/l)	(gpm)	(ug/l)	(ug/l)	(%)	(lb/hr)	(hr)	(gallons)	(lbs)
5/18/2009	40.5	13	5.5	53	< 0.5	99.33	4.10E-04	554	112,683,221	36.89
6/3/2009	39.5	15	5.3	56	< 0.5	99.40	4.45E-04	65	113,863,862	36.92
6/18/2009	39.1	13	5.2	55	< 0.5	99.35	3.98E-04	326	114,956,467	37.05
7/1/2009	40.3	8	5.5	48	< 0.5	99.09	3.02E-04	308		37.14
7/15/2009	40.3	11	5.3	47	< 0.5	99.23	3.47E-04	144	116,880,146	37.19
7/28/2009	40.6	13	5.4	61	< 0.5	99.37	4.29E-04	458	117,875,510	37.39
8/13/2009	40.4	13	5.3	51	< 0.5	99.33	3.98E-04	382	119,179,679	37.54
8/24/2009	40.2	11	5.3	50	< 0.5	99.25	3.54E-04	449	120,101,173	37.70
9/8/2009	39.9	13	5.8	53	< 0.5	99.30	4.14E-04	141	121,195,547	37.76
9/25/2009	39.8	12	5.8	57	< 0.5	99.28	4.05E-04	412		37.93
10/5/2009	39.0	10	5.8	54	< 0.5	99.17	3.50E-04	241	123,425,152	38.01
10/26/2009	39.5	12	5.7	56	< 0.5	99.28	3.97E-04	495	125,116,473	38.21
11/9/2009	36.0	8	5.4	48	< 0.5	99.03	2.79E-04	324	126,225,749	38.30
11/24/2009	37.5	11	5.5	51	< 0.5	99.21	3.47E-04	502	127,401,169	38.47
12/8/2009	36.2	12	5.4	50	< 0.5	99.23	3.53E-04	172	128,531,881	38.53
12/26/2009	36.3	13	5.2	55	< 0.5	99.31	3.80E-04	307	129,597,083	38.65
1/4/2010	36.8	13	5.1	54	< 0.5	99.32	3.77E-04	256	130,483,512	38.75
1/21/2010	37.5	14	5.3	62	< 0.5	99.38	4.27E-04	408	131,905,544	38.92
2/5/2010	32.9	12	5.3	47	< 0.5	99.18	3.22E-04	343	133,103,574	39.03
2/19/2010	31.4	15	6.3	55	0.8	98.74	4.09E-04	564	134,268,526	39.26
3/4/2010	34.4	16	5.8	60	< 0.5	99.35	4.50E-04	251	135,357,700	39.38
3/18/2010	33.1	14	6.2	48	< 0.5	99.19	3.81E-04	104	136,119,625	39.42
4/1/2010	33.8	11	5.7	47	< 0.5	99.11	3.20E-04	328	137,471,358	39.52
4/15/2010	34.0	14	6.3	58	< 0.5	99.25	4.21E-04	336	138,658,458	39.66
4/30/2010	33.6	15	6.3	59	< 0.5	99.28	4.39E-04	342	139,868,436	39.81
5/13/2010	32.2	16	6.4	68	0.5	99.30	4.76E-04	299	140,932,142	39.95
5/28/2010	33.3	14	5.7	76	1.0	98.77	4.50E-04	440	142,195,019	40.15
6/10/2010	33.2	16	6.6	65	0.51	99.30	4.81E-04	226	143,273,616	40.26
6/25/2010	33.0	17	6.3	61	< 0.5	99.33	4.73E-04	322	144,415,954	40.41
7/7/2010	32.8	16	4.8	57	0.43	99.48	4.00E-04	148	144,933,844	40.47
7/21/2010	32.0	14	5.3	53	0.44	99.36	3.65E-04	330	146,092,591	40.59
8/5/2010	31.5	15	4.7	52	< 0.5	99.34	3.59E-04	289	147,070,847	40.70
8/19/2010	33.7	16	5.0	62	< 0.5	99.41	4.25E-04	607	148,241,055	40.95
9/23/2010	32.4	25	6.3	58	0.51	99.45	5.89E-04	24	149,287,179	40.97
10/7/2010	31.0	19	7.0	63	0.35	99.52	5.16E-04	336	150,455,995	41.14
10/21/2010	31.9	14	7.0	51	0.19	99.67	4.02E-04	336	151,622,702	41.28
11/4/2010	31.2	17	6.2	60	0.20	99.73	4.52E-04	336	152,792,358	41.43
11/19/2010	35.0	16	6.7	56	0.18	99.74	4.68E-04	639	154,048,914	41.73
12/2/2010	32.6	17	6.9	55	0.18	99.73	4.68E-04	34	155,135,670	41.74
12/16/2010	31.5	16	7.1	56	0.24	99.62	4.51E-04	337	156,313,184	41.90
12/30/2010	33.4	18	6.7	57	< 0.5	99.32	4.92E-04	335	157,479,890	42.06

NOTES:

ABBREVIATIONS:

gpm: gallons per minute

lb/hr: pounds per hour

ug/L: micrograms per liter

QUALIFIERS:

1. Total mass of VOCs recovered through August 25, 2004 based on

information reported by URS Corporation.

 2. Estimated through the end of the reporting period.
 3. Estimated average PCE removal rate and estimated system runtime shown NS: Not sampled for both EW-1/EW-2, respectively.

D: Result taken from reanalysis at a secondary dilution

J: Compound found at a concentration below CRDL, value estimated

B: Compound detected in method blank as well as the sample, value estimated

E: Compound concentration exceeds instrument calibration range, value estimated

measured at the EW-1/EW-2 influent flow meters. The cause of this inconsistency is likely related to fouling, caused by iron oxide accumulation on the influent flow meter paddle wheels, resulting in non-representative influent flow readings. It should be noted that the influent flow meters have been routinely disassembled and cleaned, and were replaced in-kind in January 2010 in an effort to correct this issue; however, this has not corrected the problem and the flow meters continue to consistently malfunction. As recommended in Section 8.0, it is warranted to replace the influent paddle wheel-style flow meters with mag-style flow meters.

A review of the extraction rate for EW-1 and EW-2 on Table 3-4 shows that EW-1 has been operating at a flow rate ranging from 31.4 gpm to 41.4 gpm and EW-2 has been operating at a flow rate ranging from 1.6 gpm to 6.7 gpm. The lower operating flow rate of EW-2 is due to the presence of a silty clay soil unit within the well screen zone. Note, due to the relatively high concentrations of VOCs detected from this soil interval, during installation of the well, the NYSDEC decided to keep the extraction well at this location and depth. Both extraction wells have been operating at a combined flow rate ranging from 36.9 gpm to 47.3 gpm throughout this operating period.

The Franklin Cleaners Engineering Design Report modeled one and two well extraction scenarios at cumulative extraction rates of 15, 20, 30 and 40 gpm, with the flow equally distributed between the two extraction wells. Based on a review of the plume width in relation to the modeled radius of influence, the minimum required pumping rate for a one or two well scenario is 20 gpm. However, since the model was based on a simplification of actual site conditions and uses several assumptions and, as detailed above, the treatment system has been operating at a cumulative average flow rate ranging from 36.9 gpm to 47.3 gpm in order to provide a factor of safety.

In an effort to confirm the capture zone of EW-1, a pump test was undertaken from July 22, 2010 through July 27, 2010 to assess the radius of influence of the extraction well. EW-1 was targeted for the pump test because it had previously been determined that, due to a high clay and silt component in the soil at its screened interval, extraction well EW-2 does not yield more than approximately 6-7 gpm. As part of the EW-1 pump test, pressure transducers

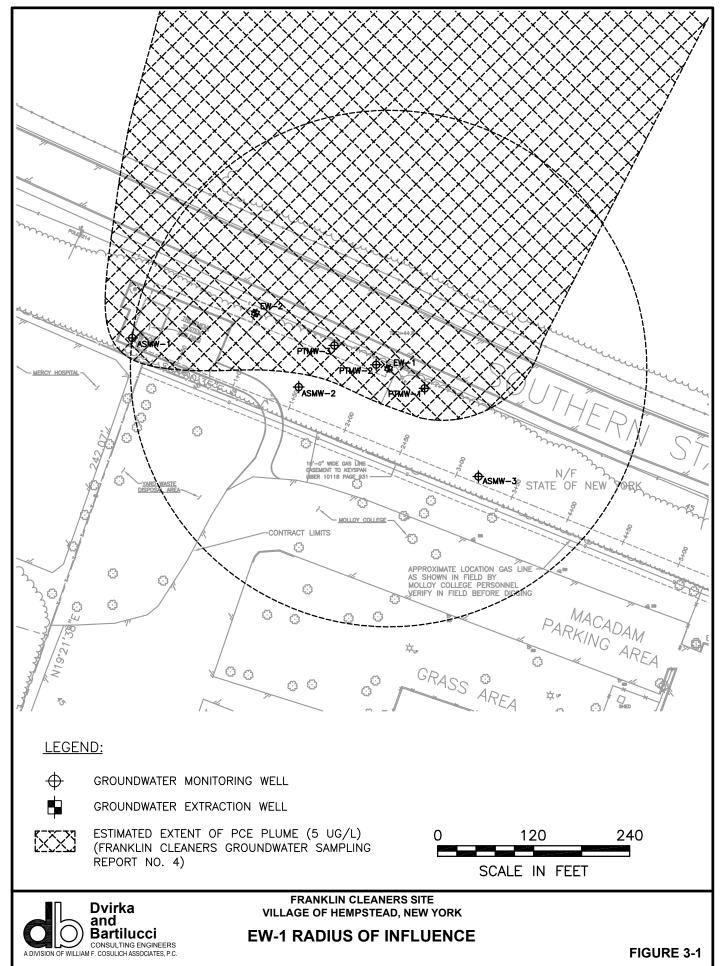
were installed in groundwater monitoring wells ASMW-1, ASMW-2 and ASMW-3, as well as in three existing pump test monitoring wells (PTMW-01, PTMW-02 and PTMW-03), which had been installed along the southern shoulder of the Southern State Parkway as part of the predesign investigation. A site plan depicting the location of the extraction wells, monitoring wells and pump test wells is provided on Figure 3-1. A summary of the pump test results is provided on Table 3-5.

As presented on Table 3-5, extraction well EW-1, pumping at 32 gpm influenced all six of the targeted groundwater monitoring wells. However, monitoring well ASMW-1, located approximately 200 feet west of EW-1, exhibited only a minor degree of influence at approximately 4 inches of measured vertical water elevation change. Comparing this 200-foot radius of influence to the latest approximate configuration of the contaminated groundwater plume, as depicted in Figure 3-1, a portion of the western edge of the plume may not effectively be captured at a pumping rate of 32 gpm. However, PCE has not been detected in any "sentinel" early warning wells or Rockville Centre production wells since system start-up.

Based on the above information, as well as to further define the location and configuration of the plume being captured by the treatment system, we recommend the installation of temporary monitoring wells to the south and west of the treatment system building. Further detail regarding this recommendation is provided in Section 8.0.

Extraction and Treatment System Downtime Evaluation

As noted above, the treatment system experienced approximately 240 days (5,755 hours) of downtime throughout this reporting period due to non-routine maintenance and system alarm/shutdown conditions, the majority of which was associated with general system alarms due to high-high wet well conditions and extraction wells EW-1 and EW-2. A summary of these events is provided below:



F:\2531\DWG\Periodic Review\well location map w plume.dwg, 6/21/2011 1:50:04 PM, dbcadd

TABLE 3-5 FRANKLIN CLEANERS SITE NYSDEC SITE No. 11-30-050

SUMMARY OF RADIUS OF INFLUENCE ASSESSMENT (EW-1)

Monitoring Point	PTMW-2	PTMW-1	PTMW-3	ASMW-2	ASMW-3	ASMW-1
Distance from EW-1 (ft)	12.54	34.25	49.75	67.76	123.55	202.81
Water Level (EW-1 @ 32 gpm) (feet amsl)	24.68	25.62	25.97	25.99	26.72	26.48
Water Level (EW-1 @ 0 gpm) (feet amsl)	27.64	27.69	27.52	27.36	27.59	26.81
Water Level Difference (ft)	2.97	2.07	1.55	1.36	0.87	0.34
Water Level Difference (inches)	35.58	24.78	18.55	16.37	10.41	4.06

- System shutdowns as a result of high-high conditions in the wet well have been a recurring problem. The cause of the alarms has been investigated on multiple occasions. In September 2010, it was noted that the phase loss detection device within the wet well pump control panel was cracked. It was replaced at the end of the month and, as a result, the treatment system did not experience any downtime associated with high-high wet well conditions through the end of December 2010;
- Extraction well EW-1 was shut down on November 15, 2005 due to a variable • frequency drive (VFD) overload failure, caused by a malfunctioning pump and motor. From November 2005 through March 2006, the NYSDEC coordinated with the New York State Department of Transportation (NYSDOT) to obtain the required permits needed in order to access EW-1 from the Southern State Parkway right-of-way, as well as to allocate the additional money needed to complete the work. From March 2006 through June 2006, D&B prepared a scope of work to complete the extraction well pump and motor replacement and obtained quotes from several subcontractors. D&B received authorization from the NYSDEC to proceed with the work in July 2006. On September 7, 2006, the extraction well pump and motor were removed and the extraction well was redeveloped. Following redevelopment, a new extraction well pump and motor were installed in the extraction well. In order to avoid lengthy delays associated with a future pump and motor replacement event, the Site Management Plan for the FC site will include provisions for completion of this work; and
- Extraction well EW-2 was shut down on July 25, 2006 due to a VFD overload failure, caused by a high amperage draw from the extraction well motor. On August 30, 2006, the extraction well pump and motor were removed and the extraction well was redeveloped. Following coordination with the NYSDEC and NYSDOT, a scope of work to complete the extraction well pump and motor replacement was approved in April 2007. Several quotes were received to complete the work and submitted to the NYSDEC for approval on June 12, 2007. A follow-up cost reasonableness evaluation was also submitted on June 25, 2007. D&B received authorization from the NYSDEC to proceed with the work on July 30, 2007. On August 30, 2007 the extraction well pump and motor were removed and a new extraction well pump and motor (Grundfos Redi-Flo 4, Model 5E8) were installed in the extraction well. In order to avoid lengthy delays associated with a future pump and motor replacement event, the Site Management Plan will include provisions for completion of this work.

Note, VOCs were not detected in any "sentinel" early warning monitoring wells following these downtime events.

4.0 MONITORING PLAN COMPLIANCE

4.1 Monitoring Plan Requirements and Compliance Status

The monitoring scope of services for the Franklin Cleaners off-site groundwater extraction and treatment system consists of treatment system monitoring activities and groundwater monitoring activities completed in accordance with the requirements of the October 2003 Franklin Cleaners Site OMM. Presented below is a summary of each monitoring activity performed throughout this reporting period, along with the associated performance standards, performance evaluation and compliance status.

Treatment System Monitoring Activities

Treatment system monitoring activities performed throughout this reporting period include the sampling of the various treatment system processes to monitor overall system removal efficiencies, while at the same time, ensure that all treatment system discharges are below applicable standards and/or discharge limits. The treatment system monitoring activities completed during this reporting period include:

- Collection and analysis of groundwater influent and effluent samples on a bi-monthly frequency. Influent and effluent samples are analyzed for Target Compound List (TCL) VOCs. Effluent samples are also analyzed for pH, iron and manganese; and
- Weekly monitoring of each carbon vessel vapor phase influent and effluent using Tedlar bags and a hand-held photoionization detector (PID).

Since system start-up to May 2010, TCL VOCs were analyzed utilizing NYSDEC ASP Method 8260 and Method OLMO4.2. However, as required by the NYSDEC, from May 2010 through the end of this reporting period, TCL VOCs were analyzed utilizing United States Environmental Protection Agency (USEPA) Method 624. Iron and manganese are analyzed utilizing USEPA Method 6010 and pH is analyzed utilizing USEPA Method 9040. A summary of the routine treatment system monitoring analytes and their typical frequency of completion is provided on Table 4-1.

TABLE 4-1 FRANKLIN CLEANERS SITE NYSDEC SITE No. 1-30-050

TREATMENT SYSTEM AND GROUNDWATER MONITORING SUMMARY

Sampling Location	Sampling Frequency				Analytical Parameters		
	Weekly	Semi- Monthly	Monthly	Quarterly	VOC	Iron & Manganese	рН
Extraction Well No. 1 Influent		Х			Х		
Extraction Well No. 2 Influent		Х			Х		
Vapor Carbon No. 1 Influent	Х				X ⁽¹⁾		
Vapor Carbon No. 1 Effluent	Х				X ⁽¹⁾		
Vapor Carbon No. 2 Influent	Х				X ⁽¹⁾		
Vapor Carbon No. 2 Effluent	Х				X ⁽¹⁾		
Air Stripper Effluent		Х			Х	Х	Х
Groundwater Monitoring Wells				Х	Х		

(1) Total VOCs using tevlar bags and a hand-held photoionization detector (PID)

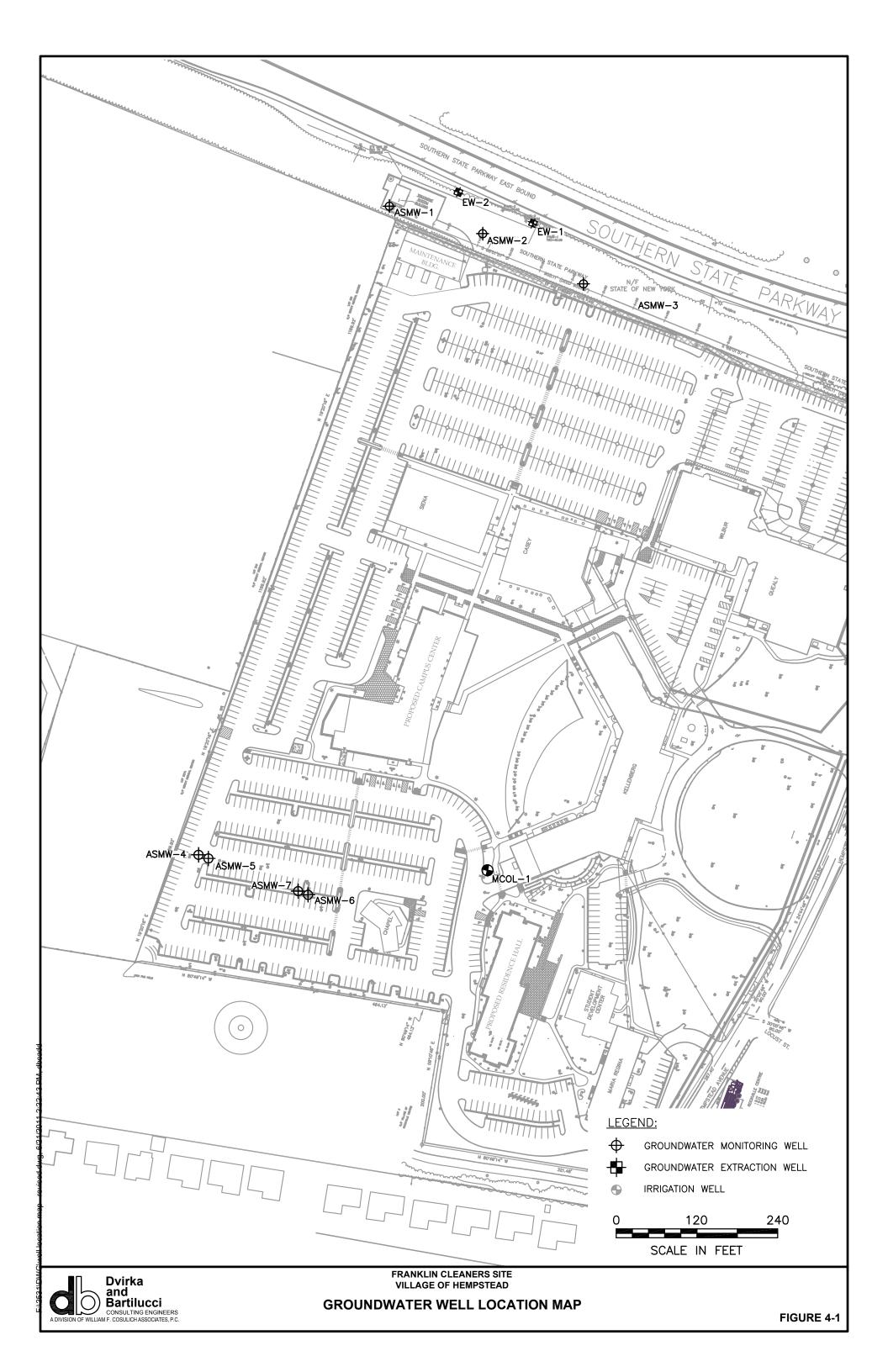
Groundwater Monitoring Activities

Groundwater monitoring activities performed throughout this reporting period include the sampling of three groundwater monitoring wells located at the leading edge of the plume and within the vicinity of the treatment system building, and four "sentinel" early warning groundwater monitoring wells located downgradient of the treatment system building. The routine sampling of these wells monitors for chlorinated VOC contaminant concentrations at the leading edge and downgradient of the Franklin Cleaners plume, while at the same time, evaluating the performance of the treatment system. Groundwater monitoring well locations are provided on Figure 4-1. Groundwater monitoring activities consist of the collection and analysis of samples from each of the seven monitoring wells on a quarterly basis. Groundwater samples are analyzed for TCL VOCs by Method 624.

Data Analysis

All samples collected from September 2004 through January 2010 were submitted to Mitkem Corporation (Mitkem) for analysis. All samples collected from February 2010 through December 2010 were submitted to Test America Laboratories (TAL) for analysis. Both laboratories are New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-certified laboratories.

The laboratory data packages are reviewed for completeness and compliance with NYSDEC Analytical Services Protocol (ASP) Quality Assurance/Quality Control (QA/QC) requirements. Any QA/QC issues arising with the sample results have been qualified as part of the Franklin Cleaners quarterly monitoring reports. Copies of all data packages received throughout the course of this reporting period are provided in Appendix C. Copies of all data validation checklists are provided in Appendix D.



4.2 Treatment System Performance Standards and Compliance Status

Aqueous Phase Effluent Discharge Standards and Compliance Status

The treated groundwater discharged from the air stripper is pumped via underground piping to a storm sewer manhole, located on the southeast corner of Hempstead Avenue and Woodland Avenue. This discharge is authorized by NYSDEC under a State Pollution Discharge Elimination System (SPDES) permit equivalency, which provides for site specific VOC, iron, manganese and pH discharge limits. A copy of the SPDES permit equivalency, as included in the O&M Manual for the site, is provided in Appendix E. It should be noted that this permit equivalency had an expiration date of January 31, 2006. As such, D&B recommends that the Division of Environmental Remediation coordinate with the Division of Water to ensure the permit is renewed.

A summary of the discharge exceedances noted at the effluent of the treatment system during this reporting period is provided on Table 4-2. As depicted on Table 4-2, iron was sporadically detected at concentrations in excess of its site-specific effluent limit of 1,000 ug/l on five occasions and pH was sporadically detected outside of its site-specific effluent range of 6.5–8.5 on twelve occasions. Upon review of the data, all discharge exceedances were immediately reported to the NYSDEC and were also presented in the quarterly monitoring reports. Note, the treatment system was not shut down as a result of these situations due to the fact that such incidences were generally intermittent.

In response to observing the pH in the effluent outside of the permitted range, field monitoring of pH at the extraction well influent, air stripper effluent and wet well were added to the weekly monitoring activities in October 2009, in order to better assess effluent pH and compare field pH readings to the pH results detected by the laboratory. In most instances the laboratory analytical results indicated a pH less than the allowable limit, while the field monitoring results indicated a pH within the allowable limit. This discrepancy may be due to the susceptibility of pH in water to variation due to changes in temperature and carbon dioxide

TABLE 4-2 FRANKLIN CLEANERS SITE NYSDEC SITE No. 11-30-050

SUMMARY OF EFFLUENT IRON AND pH EXCEEDANCES SEPTEMBER 2004 THROUGH DECEMBER 2010

		EFFLUENT
SAMPLE ID	(AS-1)	
SAMPLE TYPE	WA	TER
COLLECTED BY	D	&B
UNITS	ug/L	S.U.
EFFLUENT LIMITATION	1,000	6.5 to 8.5
DATE OF COLLECTION	IRON	рН
6/19/2006	1,080	
7/6/2006	2,890	
5/16/2007	1,220	
11/26/2007	1,080	
1/19/2009		6.4
2/2/2009		6.0
6/18/2009		6.4
7/1/2009		6.1
7/15/2009		6.3
9/8/2009		5.8
9/23/2009		5.4
10/5/2009		5.5
10/26/2009		6.2
11/9/2009		6.2
12/8/2009		6.1
1/4/2010		6.2
9/23/2010	1,130	

Notes:

ug/L: Micrograms per liter

S.U.: Standard units

--: No exceedance detected

content, both of which will be affected by sample collection and shipment. Based on the observed discrepancies in pH values and the temperature and carbon dioxide sensitivity of pH, we recommend to only field monitor for pH in the future. It is worthy to note that USEPA SW-846 recommends analyzing pH immediately, as a means of improving the reliability of pH results.

Vapor Phase Effluent Discharge Standards and Compliance Status

Vapors generated by the air stripping process are conveyed through two 500-pound vapor phase granular activated carbon (GAC) vessels connected in a series configuration prior to discharge to the atmosphere. As authorized by the NYSDEC, the vapor phase effluent total VOC concentrations are monitored with a PID and the site-specific discharge limit is 1.0 part per million (ppm).

A summary of the exceedances noted at the effluent of the vapor phase treatment system during this reporting period are presented on Table 4-3. As detailed on Table 4-3, total VOC PID readings collected at the effluent of carbon vessel numbers 1 and 2 were in exceedance of the site-specific effluent limit of 1.0 ppm on 21 and 24 occasions, respectively, during this reporting period. The majority of these instances occurred in the later part of this reporting period, indicating that the GAC is likely exhausted. Note, after evaluation of effluent contaminant concentrations, the NYSDEC decided that the GAC would not be changed at the site and that, due to low contaminant concentrations, the effluent vapor would be directly discharged to the atmosphere, without carbon treatment. All discharge exceedances throughout this reporting period were immediately reported to the NYSDEC upon review of the data and were also noted in the quarterly monitoring reports.

In consultation with the NYSDEC, the system was not shut down due to these exceedances, with the exception of the February 14, 2006 exceedance. Upon detection of the February 14, 2006 exceedance, D&B notified the NYSDEC of the exceedance and was then directed to shut the system down. At that time, D&B was soon after instructed by the NYSDEC to restart the system and to resample the effluent air with a different PID meter. The follow-up

TABLE 4-3FRANKLIN CLEANERS SITENYSDEC SITE No. 11-30-050

SUMMARY OF EFFLUENT AIR PID EXCEEDANCES SEPTEMBER 2004 THROUGH DECEMBER 2010

SAMPLE ID	NO. 1 EFFLUENT	NO. 2 EFFLUENT
SAMPLE TYPE	AIR	AIR
COLLECTED BY	D&B	D&B
UNITS	ppm	ppm
EFFLUENT LIMITATIONS	1.0	1.0
DATE OF COLLECTION		
1/17/2005	5.5	3.5
3/14/2005	1.1	
2/14/2006	25.1	31.9
2/15/2006	15.8	1.9
2/5/2010		1.5
2/19/2010		4.3
3/26/2010	5.4	2.7
4/8/2010	1.1	1.4
4/15/2010	1.3	1.2
5/13/2010	2.2	2.5
5/20/2010	1.2	1.6
5/28/2010		1.5
6/17/2010	1.7	1.1
6/25/2010	1.3	2.2
7/1/2010	1.8	1.5
9/30/2010	1.4	1.1
11/4/2010		1.1
11/19/2010	1.2	1.1
11/24/2010	1.5	1.6
12/2/2010	2.9	3.5
12/9/2010	2.0	5.1
12/16/2010	1.6	1.6
12/22/2010	10.0	7.9
12/30/2010	3.7	4.6

Notes:

ppm: Parts per million

--: No exceedance detected

PID readings did not indicate elevated concentrations of VOCs in the effluent air, and the NYSDEC instructed D&B to continue operation of the treatment system.

In addition, due to the frequency of exceedances noted from February 2010 through the end of this reporting period, D&B recommended the collection of vapor samples for analysis by Method TO-15. The effluent vapor samples were collected in February 2011. Based on review and evaluation of the analytical results, several VOCs, including PCE, were detected. PCE was detected at the lead-influent, lead-effluent and lag-effluent at concentrations of 210 micrograms per cubic meter (ug/m³), 130 ug/m³ and 180 ug/m³, respectively. Based on the PCE results, the lead vapor phase carbon adsorption vessel is capturing PCE at a rate of 40%, while the lag vapor phase carbon (GAC) is exhausted. As detailed above, the NYSDEC has decided that, based on low effluent contaminant concentrations, the GAC would not be changed-out at the site and the effluent vapor would be directly discharged to the atmosphere, without carbon treatment.

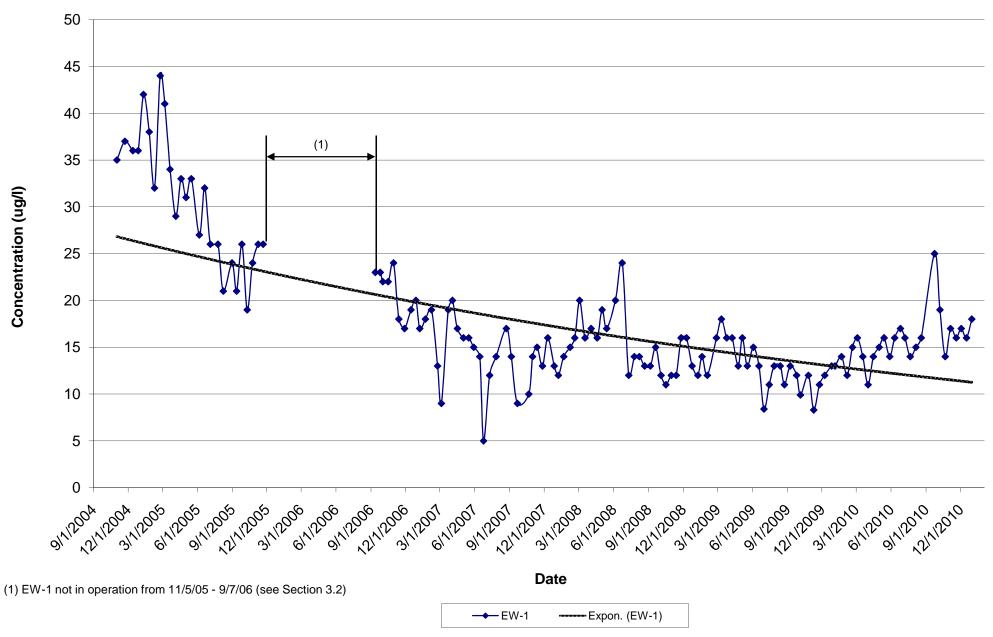
4.3 Treatment System Performance Evaluation

Groundwater Treatment Performance

Based on the influent sample results for this reporting period, EW-1 influent PCE concentrations ranged from a low of 5.0 micrograms per liter (ug/l), detected on June 24, 2007, to a high of 44.0 ug/l, detected on February 23, 2005. EW-2 influent PCE concentrations ranged from a low of 45.0 ug/l, detected on October 30, 2008, to a high of 370 ug/l, detected on January 10, 2005. A graph of PCE concentrations detected in extraction wells EW-1 and EW-2 (including a trend line) is provided on Figure 4-2 and is summarized below:

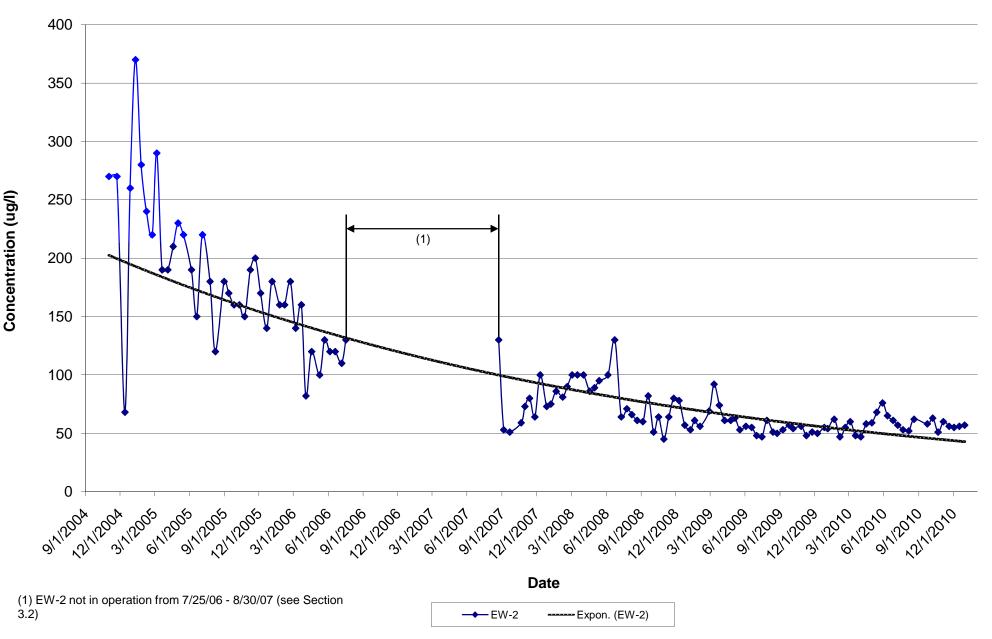
• EW-1: Concentrations of PCE detected in extraction well EW-1 have decreased since the beginning of this reporting period, but remain above the applicable NYSDEC groundwater standard of 5.0 ug/l. However, from December 2009 through the end of this reporting period, concentrations of PCE have shown a slightly increasing trend; and

FIGURE 4-2 FRANKLIN CLEANERS SITE NYSDEC SITE No. 1-30-050 **EW-1 HISTORICAL INFLUENT PCE RESULTS**



Concentration (ug/l)

FIGURE 4-2 (continued) FRANKLIN CLEANERS SITE NYSDEC SITE No. 1-30-050 EW-2 HISTORICAL INFLUENT PCE RESULTS



• EW-2: Concentrations of PCE detected in extraction well EW-2 have decreased since the beginning of this reporting period, but remain above its applicable NYSDEC groundwater standard of 5.0 ug/l. In addition, the concentration of PCE appears to be stabilizing toward the end of this reporting period.

It should also be noted that the influent and effluent PCE trends have been relatively stable over the course of this reporting period and an analysis of the biweekly sampling results show that PCE concentrations exhibit little variation between each sampling event. As such, and in order to reduce the overall system monitoring costs, it is recommended to reduce the system sampling frequency from bi-monthly frequency to a monthly frequency.

As discussed in Section 4.2, the groundwater treatment system has effectively been treating the extracted groundwater to below the NYSDEC required effluent standards. Approximately 42 pounds of VOCs were removed from the extracted groundwater during this reporting period and the average total VOC removal efficiency for the treatment system throughout this reporting period was approximately 99%. A summary of the treatment system performance results for the reporting period is provided on Table 3-4.

Vapor Phase Treatment Performance

As discussed in Section 4.2, concentrations of total VOCs were detected in exceedance of the site-specific effluent limit of 1.0 ppm in the effluent air during various monitoring events throughout this reporting period, ranging from a minimum of 1.1 ppm to a maximum of 31.9 ppm. It should be noted, that the treatment system was not shut down due to these exceedances, as per the direction of the NYSDEC, with the exception of the February 14, 2006 monitoring event.

Additionally, the vapor phase treatment was designed assuming an exhaust rate of 0.04 pounds per hour (lb/hr) of PCE (2.7 ppm). Given this concentration of PCE, a PID meter could effectively detect breakthrough of the carbon. However, as seen on Table 3-4, the maximum and minimum PCE loading rates during the monitoring period were 0.0014 lb/hr

(0.16 ppm) and 0.0001 lb/hr (0.01 ppm), respectively, which may not be detectable by a PID, given its limited low-level accuracy and susceptibility to moisture in the air or sample stream.

Based on the observed PID concentrations, D&B recommends the collection and analysis of vapor phase carbon effluent air samples via laboratory method TO-15 at a frequency of once per quarter to supplement the PID screening of the effluent vapor.

4.4 Groundwater Monitoring Network Evaluation

PCE concentrations detected over time in groundwater monitoring wells ASMW-1, ASMW-2 and ASMW-3 are graphically presented on Figure 4-3. Results from the groundwater monitoring events completed during this reporting period are summarized below:

- ASMW-1: Concentrations of PCE have ranged between non-detect and 30.0 ug/l during this reporting period. Overall, PCE concentrations are decreasing in groundwater monitoring well ASMW-1, however, not as substantially as seen in groundwater monitoring wells ASMW-2 and ASMW-3. Based on the current contaminant trends, we recommend continued sampling of groundwater monitoring well ASMW-1 on a quarterly basis;
- ASMW-2: Concentrations of PCE have decreased and are trending toward a concentration below the Class GA Standard of 5.0 ug/l. Based on the current contaminant trends, we recommend continued sampling of groundwater monitoring well ASMW-2 on a quarterly basis;
- ASMW-3: Concentrations of PCE have consistently been below the Class GA Standard of 5.0 ug/l throughout this reporting period; therefore, we recommend reducing the sampling of groundwater monitoring well ASMW-3 to a semiannual frequency;
- ASMW-4: Concentrations of PCE have consistently been non-detect for the duration of this reporting period; however, a PCE concentration of 0.16 ug/l was detected during the May 12, 2010 groundwater sampling event, which is significantly less than the PCE Class GA groundwater standard of 5.0 ug/l. This concentration may be attributed to the change of analytical methods for VOCs from USEPA Method 8260 to Method 624, as Method 624 has a lower PCE method detection limit (MDL) (0.12 ug/l) compared to Method 8260 (0.81 ug/l). Since ASMW-4 is a sentinel well for the Rockville Centre Water District, we recommend continued sampling of this well on a quarterly basis; and

FIGURE 4-3 FRANKLIN CLEANERS SITE NYSDEC SITE No. 1-30-050 GROUNDWATER MONITORING ANALYSIS - ASMW-1

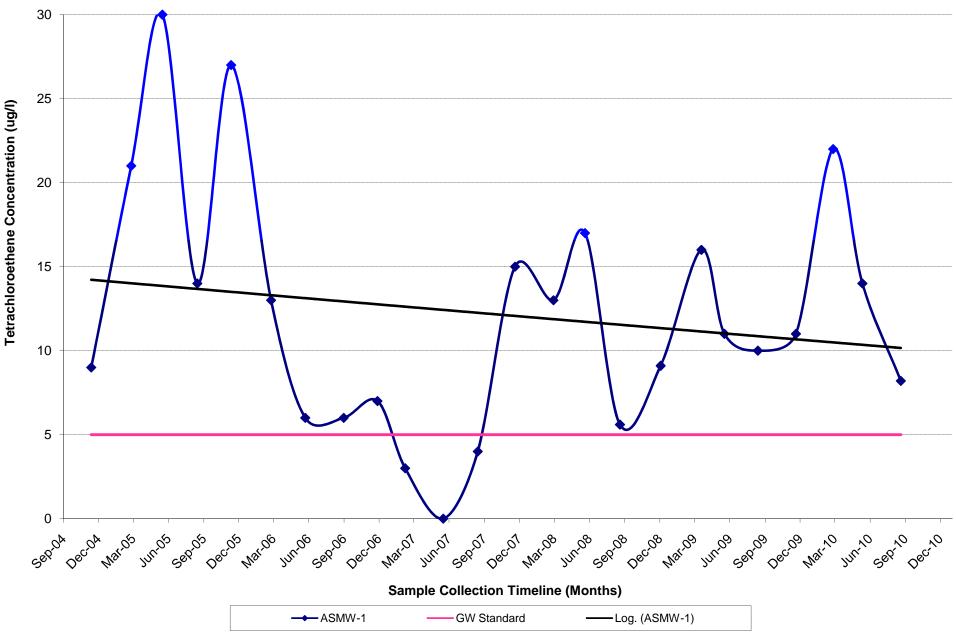


FIGURE 4-3 (continued) FRANKLIN CLEANERS SITE NYSDEC SITE No. 1-30-050 GROUNDWATER MONITORING ANALYSIS - ASMW-2

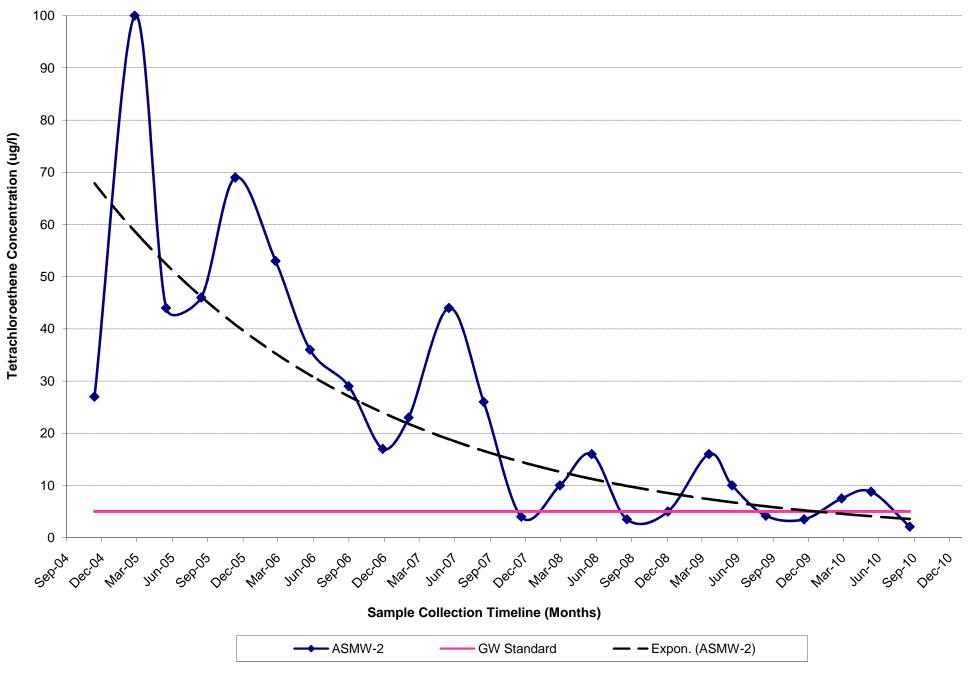
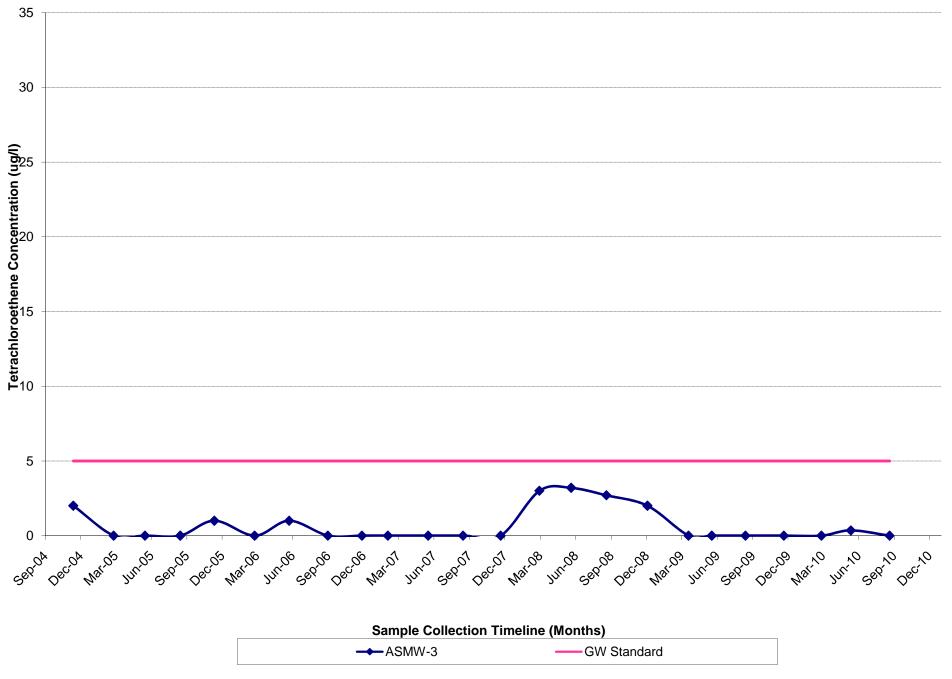


FIGURE 4-3 (continued) FRANKLIN CLEANERS SITE NYSDEC SITE No. 1-30-050 GROUNDWATER MONITORING ANALYSIS - ASMW-3



• Groundwater monitoring wells ASMW-5, ASMW-6 and ASMW-7 have not exhibited a detectable concentration of VOCs since the beginning of this reporting period. Accordingly, we recommend reducing the sampling of groundwater monitoring wells ASMW-5, ASMW-6 and ASMW-7 to a semiannual frequency.

Based on contaminant concentrations identified in the monitoring wells, the treatment system has been effectively capturing PCE contaminated groundwater. In addition, the Village of Rockville Centre water supply wells 4A, 4B and 4C, located downgradient of the groundwater monitoring well network, continue to exhibit non-detect concentration of PCE. However, the PCE concentration trend for ASMW-1 may indicate a slight shift in the plume to the west or that the radius of influence for the extraction wells may not be effectively capturing the western edge of the plume. Therefore, in order to more accurately define the current location of the PCE plume, we recommend the installation and sampling of up to five temporary Geoprobe wells to the south and west of the treatment system building. Based on the results of the temporary well sampling, it may be warranted to install additional permanent monitoring wells in these areas and/or modify the current extraction well configuration in order to ensure the entire plume is captured and monitored.

5.0 INSTITUTIONAL CONTROL/ENGINEERING CONTROL (IC/EC) CERTIFICATION PLAN REPORT

The intent of this section is to provide a description of the Institutional and Engineering Controls (IC/ECs) in place for the Franklin Cleaners site, as well as mechanisms used to monitor and enforce such controls.

5.1 IC/EC Requirements and Compliance

Institutional Controls

By definition, an IC is any non-physical means for enforcing a restriction on the use of real property that limits human health and environmental exposure, restricts the use of groundwater, provides notice to potential owners, operators, or members of the public, or prevents action that would interfere with the effectiveness and/or integrity of operation, maintenance and monitoring activities at or pertaining to the remedial site.

There currently are no ICs for the Franklin Cleaners site. However, in accordance with the Record of Decision (ROD), groundwater use restrictions can be implemented, if warranted.

In general, properties located upgradient of the treatment system building within the vicinity of the plume are serviced by public water supply and Molloy College, located immediately downgradient of the leading edge of the plume, is also serviced by a public water supply. However, an irrigation well (ASMW-7) has been installed at Molloy College for use, if needed, during the summer months to supplement irrigation water provided via the public water supply. Note, this well has never been used by Molloy College and it is not anticipated that Molloy College will utilize the well for the foreseeable future, based on current irrigation needs. Sampling of ASMW-7 is completed on a quarterly basis as part of the treatment system groundwater monitoring, and since sampling of the well began in 2004, and all VOCs have been non-detect. Therefore, given the availability of public water and the non-detect concentrations of VOCs in ASMW-7, no ICs are warranted at this time.

Engineering Controls

By definition, an EC is any physical barrier or method employed to actively or passively contain, stabilize or monitor contamination, restrict the movement of contamination to ensure long-term effectiveness of a remedial program, or eliminate potential exposure pathways to contamination. The EC's currently in place are the groundwater extraction and treatment system and groundwater monitoring well ASMW-7.

The groundwater extraction and treatment system is currently operating in accordance with the design standards, as specified in the Franklin Cleaners Design Report. In addition, the system is also treating all extracted groundwater to a level that is below the site–specific effluent limits. However, as detailed above, PCE concentrations in groundwater monitoring well ASMW-1 have generally remained in excess of the Class GA Standard of 5.0 ug/l throughout this reporting period. In addition, the pump test completed in July 2010, indicated that ASMW-1 is currently being influenced by extraction well EW-1; however, the influence is minor. Based on this information, and in order to more accurately define the current location of the PCE plume, D&B recommends the installation and sampling of up to five temporary Geoprobe wells to the south and west of the treatment system building. Based on the results of the temporary well sampling, it may be warranted to install additional permanent monitoring wells in these areas and/or modify the current extraction well configuration in order to ensure the entire plume is captured and monitored.

In accordance with the March 1998 ROD, irrigation/groundwater monitoring well ASMW-7, was installed at Molloy College to replace a shallow irrigation well which became contaminated with PCE. Note, this well has never been used by Molloy College and it is not anticipated that Molloy College will utilize the well for the foreseeable future, based on current irrigation needs. Sampling of ASMW-7 is completed on a quarterly basis as part of the treatment system groundwater monitoring, and since sampling of the well began in 2004, all VOCs have been observed at non-detect concentrations. It should be noted, that this EC is not currently listed on the IC/EC certification form; therefore, we recommend revising the form to include groundwater monitoring well ASMW-7.

5-2

A copy of the completed IC/EC Certification Form, as provided by the NYSDEC, is included as Appendix F.

6.0 GREEN REMEDIATION MONITORING PLAN

In accordance with the NYSDEC's new DER-31 Green Remediation policy, the following section provides a qualitative assessment of the overall environmental impacts or "footprint" associated with the operation of the Franklin Cleaners groundwater extraction and treatment system. In addition, recommendations are provided in order to minimize the environmental impacts of the remedy.

6.1 Qualitative Assessment of Environmental Impacts

Electric Usage

Based on a review of the electric utility bills from February 2010 through February 2011, the groundwater extraction and treatment system used a total of approximately 114,960 kilowatthours (KWH) of electricity, at an average of 349 KWH/day. The summer seasonal average electricity usage was 315 KWH/day and, due to the operation of an electric heater, the winter seasonal average electricity usage was 381 KWH/day. The system currently obtains 100% of its electricity from the local electric utility, Long Island Power Authority (LIPA). Based on publically available information, LIPA currently supplies electricity from a variety of fuel sources, including fossil fuels (46%), nuclear (11%), refuse burning (4%) and renewables (3%). The remaining 35% of its electric is supplied from other outside electric utilities.

Electricity usage associated with the treatment system building is mainly attributed to operation of the submersible extraction well pumps (EW-1 and EW-2), pressure blower, wet well sump pumps and building heater. Currently, only the submersible pumps are equipped with a variable frequency drive to modulate their flow and associated electric usage. Minor electricity usage can also be attributed to building and site lighting, the treatment system alarm system, building fan and treatment system controls. Other system components which require electricity to operate include the on-site pressure washer, containment island pumping system and jet pump for the non-potable water storage tank; however, these items are rarely used and have accounted for an insignificant amount of electricity usage during this reporting period.

Fossil Fuel Usage

The groundwater extraction and treatment system does not directly use fossil fuels for operation; however, fossil fuels are indirectly used by operation of the treatment system, and during the completion of maintenance and monitoring activities associated with the treatment system and groundwater monitoring well network. Indirect fossil fuel use results from completion of the following site related activities:

- Transportation to and from the Site for monitoring, sampling and alarm response activities;
- Operation of a gasoline generator to power a submersible pump for groundwater monitoring well sampling activities; and
- Off-site transportation and shipment of samples collected for laboratory analysis and disposal of waste, such as spent GAC, from the site.

Water Usage

The groundwater extraction and treatment system does not directly use water for operation. Note that the treatment system building is currently equipped with a pressurized water storage tank and jet pump, which is set up to store treated groundwater from the treatment system wet well sump for later use in a slop sink. Therefore, since the treatment system utilizes an on-site source for water, the treatment system has no net impact associated with water usage.

Air Emissions

All groundwater extraction and treatment system effluent vapor is directed into two 500 lb capacity GAC vessels, which are designed to remove all VOCs from the effluent air prior to discharge to the atmosphere. Note that while the treatment system is equipped with GAC vessels to capture VOCs emitted from the treatment system, there is a potential for emission of VOCs from the treatment system once the GAC is exhausted. However, the effluent air is

monitored to prevent or limit these instances. In addition, monitoring and maintenance activities associated with the treatment system also result in indirect emissions to the air through the offsite generation of electricity utilized to power the treatment system and the combustion of fossil fuels, as discussed above.

Consumption of Materials and Generation of Waste

Monitoring, maintenance and reporting activities associated with the treatment system result in material consumption and the generation of waste. A summary of the current material consumption and waste generation activities for the system are summarized below:

- Personal protective equipment associated with treatment system and groundwater sampling, such as nitrile gloves and hearing protection, etc.;
- Polyethylene tubing, twine and bailers utilized during groundwater sampling activities;
- Tedlar bags associated with PID air sampling of the carbon vessels;
- Packaging material and ice used to pack and preserve samples to be submitted for laboratory analysis;
- Florescent light bulbs for building lighting;
- Paper and office supplies associated with treatment system site logs, monitoring logs and report preparation;
- Repair and replacement of equipment associated with the treatment system; and
- Off-site transportation and disposal/regeneration of the GAC contained in the carbon vessels.

7.0 COST EVALUATION

The total cost of operation of the treatment system from September 2004 through December 2010 was approximately \$754,091. This total includes costs associated with labor, expenses and subcontractor costs for both D&B and EAR, and costs associated with utilities for the treatment system (electric and telephone). This total does not include NYSDEC labor and expense costs associated with project management. A review of these costs is provided on Table 7-1. The following provides a brief review of each cost item:

- D&B's labor includes effort billed in association with monitoring, sampling, subcontractor oversight and alarm response, as well as engineering services, report preparation, project planning and other office-related work items. As summarized on Table 7-1, labor costs were approximately 53% of the total costs for this reporting period and represent the largest majority of the overall costs for the treatment system.
- Subcontractors include the analytical laboratory and maintenance contractors associated with the routine/non-routine maintenance of the treatment system. The costs associated with EAR, Systematic Technologies and EnviroTrac Ltd. include both labor and materials for all maintenance completed. As summarized on Table 7-1, subcontractor costs were approximately 30% of the total costs for this reporting period.
- Utilities include electric service for the treatment system and telephone service for treatment system alarm notification system. As summarized on Table 7-1, utility costs were approximately 16% of the total costs for this reporting period, primarily due to electric usage.
- Expenses include items purchased for equipment maintenance, repair and replacement of system components, treatment system sampling, sample shipment, auto travel, reproduction and other miscellaneous costs associated with the operation and maintenance of the treatment system. As summarized on Table 7-1, expense costs were approximately 3% of the total costs for this reporting period and represent the smallest portion of the overall costs for the treatment system.

TABLE 7-1

FRANKLIN CLEANERS SITE NYSDEC SITE No. 1-30-050 TREATMENT SYSTEM COST SUMMARY

COST ITEM	BUDGET EXPENDED (SEPTEMBER 2004 THROUGH DECEMBER 2010)	PERCENT OF TOTAL
LABOR		
D&B	\$ 384,268.83	52.50%
SUBCONTRACTORS		
NYSDEC Call-Out Contractor	\$ 97,964.14	13.4%
Mitkem Corporation	\$ 50,957.19	7.0%
Systematic Technologies	\$ 33,273.36	4.5%
Envirotrac Ltd.	\$ 16,085.00	2.2%
NYSDEC Call-Out Laboratory	\$ 6,650.31	0.91%
SUB-TOTAL	\$ 204,930.00	28.00%
UTILITIES		
Electric	\$ 117,346.21	16.0%
Telephone	\$ 3,837.47	0.52%
SUB-TOTAL	\$ 121,183.68	16.56%
EXPENSES		
Shipping (UPS/FedEx)	\$ 5,568.02	0.76%
Auto Travel	\$ 5,425.35	0.74%
Equipment Rental	\$ 4,670.72	0.64%
Supplies	\$ 1,804.62	0.25%
Enterprise Rent-A-Car	\$ 1,592.92	0.22%
Reproduction	\$ 369.05	0.05%
Gas and Oil	\$ 352.16	0.05%
Morris Industries, Inc.	\$ 348.22	0.05%
SKC Inc.	\$ 257.74	0.04%
Lab Safety Supply, Inc.	\$ 237.17	0.03%
Telephone	\$ 220.80	0.03%
Grainger	\$ 202.76	0.03%
Miscellaneous	\$ 168.68	0.02%
Cingular Wireless	\$ 114.60	0.02%
Blackman Plumbing Supplies	\$ 100.00	0.01%
In-House Equipment Usage	\$ 80.00	0.01%
McMaster Carr	\$ 47.69	0.01%
SUB-TOTAL	\$ 21,560.50	2.95%
TOTAL	\$ 731,943.01	
AVERAGE COST/MONTH	\$ 9,759.24	
COST/POUND OF VOC REMEDIATED	\$ 17,427.21	

Based on a total cost of approximately \$731,943 incurred during this reporting period, the average cost of monthly system operation is approximately \$9,759 per month. In addition, when compared to a total of 42 pounds of VOCs removed throughout this reporting period (as summarized on Table 3-4), the cost of VOC removal is approximately \$17,427 per pound of VOC.

8.0 CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

Based on the evaluation of the treatment system performance, effectiveness and protectiveness throughout this reporting period, and as detailed in the preceding sections, the following conclusions have been established:

- O&M Plan: As noted in Section 3.1, the O&M scope of services was performed in accordance with the requirements of the Franklin Cleaners OMM;
- Monitoring Plan: As noted in Section 4.1, monitoring requirements were maintained throughout this reporting period, in accordance with the requirements of the Franklin Cleaners OMM; and
- IC/EC Plan: As noted in Section 5.1, all EC requirements, as listed in the IC/EC Certification Form provided by the NYSDEC, are currently in place and operating as intended. Note, based on current contaminant concentrations a groundwater restriction is not currently in-place.

8.2 **Recommendations**

Based on the evaluation of the operation of the treatment system throughout this reporting period, and as detailed in the preceding sections, the following recommendations have been established to improve the overall performance, effectiveness and protectiveness of the groundwater extraction and treatment system:

Operation and Maintenance Recommendations

• <u>Patching Epoxy Floor Coating</u>: As previously mentioned, multiple areas of the floor epoxy coating have begun to ripple, crack and peal due to normal wear and moisture. In order to maintain the concrete floor integrity and the performance of the treatment system, we recommend that these areas be scraped to remove loose coating and resealed with epoxy. In accordance with the FC OMM, it is recommended to install a Sikagard 62 epoxy coating, as manufactured by Sika, or equivalent;

- <u>Reduction of Monitoring Frequency</u>: The overall system performance has been stable over the course of this reporting period, and an analysis of the weekly monitoring records shows that the operating parameters (i.e., extraction well flow rates, blower flow rate, operating pressures, etc.) are consistent and exhibit little variation between each weekly event. Therefore, in order to reduce the overall system monitoring costs, and increase the system's performance, we recommend a reduction in system monitoring from a weekly to a bi-weekly frequency. This reduction in monitoring events will result in a savings of approximately 50% in labor and expense costs associated with the system monitoring, as well as provide for an overall reduction of environmental impacts associated with travel to and from the Site and the disposal of personal protective equipment (PPE);
- <u>Extraction Well Preventative Maintenance</u>: In order to eliminate the high costs of extraction well rehabilitation activities and increase the performance of the treatment system, we recommend implementation of a preventative maintenance program for extraction wells EW-1 and EW-2, such as the Aqua GardTM system, to facilitate periodic treatment of the extraction wells in order to prevent future fouling and decreased performance. It should be noted that installation of permanent treatment provisions within each extraction well will minimize costs associated with future maintenance events such as well redevelopment, pump and motor failure, and change out;
- <u>Replacement of Influent Flow Meters</u>: Inconsistencies between the paddle-wheel system influent flow meters and the mag-style effluent flow meter total gallons pumped have been consistently noted. The cause of the inconsistencies may be due to fouling, caused by iron oxide accumulation on the influent flow meter paddle wheels. Routine cleaning of the paddle wheels has not been an effective remedy. In order to maintain the performance of the treatment system, we recommend replacing the paddle wheel influent meters with mag-style flow meters, which are less susceptible to fouling; and
- <u>Temporary Monitoring Well Installation/Sampling Event</u>: Based on the pump test and resulting radius of influence test completed in July 2010, a small portion of the plume to the west of the treatment system building may not be currently captured by the treatment system. In order to increase the performance, effectiveness and protectiveness of the overall treatment system and, in an effort to more accurately define the current location of the PCE plume, we recommend the installation and sampling of up to five temporary Geoprobe wells to the south and west of the treatment system building. Based on the results of the temporary well sampling, it may be warranted to install additional permanent monitoring wells in these areas and/or modify the current extraction well configuration in order to ensure the entire plume is captured and monitored.

Monitoring Recommendations

- <u>SPDES Permit Equivalency Renewal</u>: Since the current SPDES permit equivalency expired on January 31, 2006, we recommend that the Division of Environmental Remediation coordinate with the Division of Water to ensure the permit is renewed;
- <u>Reduction of Sampling Frequency</u>: The influent and effluent PCE concentrations have been stable over the course of this reporting period, and an analysis of the bi-weekly sampling results demonstrates overall decreasing contaminant concentrations. Therefore, in order to reduce half of the overall system sampling costs and increase the treatment system performance, we recommend a reduction in the system sampling from a bi-weekly to a monthly frequency. This reduction in monitoring will result in a savings of approximately 50% of the labor costs and expense costs associated with the system sampling, as well as provide for an overall reduction of environmental impacts associated with travel to and from the Site, the disposal of PPE, packaging materials utilized during sample shipment, overnight shipment of samples to the laboratory and laboratory sample analysis;
- <u>Modification of pH Analysis</u>: Due to the pH exceedance observed throughout this reporting period and the greater accuracy of the field screening of pH, we recommend continuing the field screening and cancelling the laboratory testing for pH to increase the treatment system performance;
- <u>Vapor Phase Carbon Effluent Sampling</u>: Due to the inherent susceptibility to moisture and the limited low-level accuracy of PIDs, we recommend the collection and analysis of vapor phase carbon effluent air samples by laboratory method TO-15 at a frequency of once per quarter to supplement the PID monitoring and increase the effectiveness and protectiveness of the treatment system; and
- <u>Reduction of Groundwater Monitoring Sampling</u>: Due to the low levels of PCE consistently detected within groundwater monitoring wells ASMW-3, ASMW-5, ASMW-6 and ASMW-7, we recommend reducing the sampling of these wells to a semiannual frequency. This reduction in monitoring will result in a savings of approximately 50% of the labor costs and expense costs associated with the sampling of these wells, as well as provide for an overall reduction of environmental impacts associated with travel to and from the Site, indirect fossil fuel usage, the disposal of PPE, packaging materials utilized during sample shipment and laboratory sample analysis.

Institutional and Engineering Control Recommendations

- The groundwater treatment system EC should remain in place until remedial objectives have been achieved;
- Based on the availability of public water and the non-detect concentrations of VOCs in groundwater monitoring well ASMW-7, ICs are not warranted at this time; however, if concentrations of PCE are detected in ASMW-7, a groundwater use restriction IC should be implemented to prevent the use of groundwater from the well;
- The Molloy College irrigation well EC should be listed on the IC/EC form and remain in place and be sampled on a semiannual basis, as recommended above.

Green and Sustainability Recommendations

- Since the pressure blower system does not include a Variable Frequency Drive (VFD), the blower operates at 100% capacity at all times. In order to reduce the electric usage associated with the blower, we recommend the installation of a VFD to control the pressure blower motor. Installation of a VFD could potentially reduce the electrical draw of the pressure blower motor, and consequently be less costly to operate, while still ensuring sufficient air flow to achieve complete contaminant removal;
- In order to reduce the electric usage associated with the building heater, we recommend evaluating the feasibility of installing a geothermal heat pump system utilizing the existing groundwater piping. A geothermal heat pump system uses a fraction of the electricity of an electric heater and is subsequently less costly to operate. Note that the existing building heater should remain as a backup heater. In addition, it is recommended to maintain the building heat at no more than 45°F in the winter season;
- In order to reduce the electric usage associated with site lighting, we recommend installing motion sensors on the building exterior lights. Adding motion sensor lighting would reduce electrical costs by not lighting the site when not needed. In addition, all site light bulbs should be replaced with high efficiency bulbs to further reduce electricity costs associated with building lighting;
- Electricity provided from the local utility is mainly generated from non-renewable sources. In order to off-set the electricity usage for the treatment system from non-renewable sources, we recommend to evaluate the feasibility of installing alternate sources of energy at the treatment system or purchasing renewable energy credits;

- In order to reduce the fossil fuel usage associated with transportation to and from the site and with sample collection and shipment, we recommend reducing the treatment system weekly monitoring frequency to a bi-weekly monitoring frequency as presented above;
- In order to further reduce the fossil fuel usage associated with site groundwater sampling, we recommend reducing the quarterly sampling frequency of groundwater monitoring wells ASMW-3, ASMW-5, ASMW-6 and ASMW-7 to a semiannual frequency, as presented above;
- In order to reduce the consumption of materials and generation of waste associated with operation and sampling of the treatment system, we recommend reducing the frequency of site monitoring and sampling events, as detailed above; and
- In order to reduce the use of paper associated with report preparation, we recommend transmitting reports electronically as PDF files. In addition, in order to reduce the use of paper associated with on-site record keeping and monitoring, we recommend considering installation of on-site recording instruments capable of storing and transmitting the data electronically, as needed.

General Recommendations

- As per the NYSDEC, the requirements of the O&M Plan, Monitoring Plan and IC/EC Plan shall be included as part of a Site Management Plan (SMP) for the site. An SMP does not currently exist for the Franklin Cleaners groundwater treatment system. Therefore, in order to remain consistent with this requirement, an SMP shall be prepared and submitted to the NYSDEC for review and approval; and
- Based on a review of the guidance documents provided by the NYSDEC, we recommend periodic review be maintained and completed on an annual basis. The frequency of follow-up Periodic Review Reports shall be determined by the NYSDEC based on future site conditions and compliance.

APPENDIX A

DETAILS OF SYSTEM SHUTDOWNS AND NON-ROUTINE MAINTENANCE

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
9/15/04 10:25 AM	9/15/04 10:35 AM	Performance Monitoring - Shut down system to test various alarm conditions during auto-dialer reprogramming.	0.17
9/15/04 10:45 AM	9/15/04 11:00 AM	Performance Monitoring - Shut down system to test various alarm conditions during auto-dialer reprogramming.	0.25
9/15/04 11:15 AM	9/15/04 11:30 AM	Performance Monitoring - Shut down system to test various alarm conditions during auto-dialer reprogramming.	0.25
9/15/04 11:40 AM	9/15/04 11:50 AM	Performance Monitoring - Shut down system to test various alarm conditions during auto-dialer reprogramming.	0.17
9/26/04 7:00 AM	9/27/04 9:30 AM	Alarm Condition No. 6 - High water level in wet well caused system to go into alarm.	26.50
10/10/04 3:00 PM	10/11/04 10:15 AM	Alarm Condition No. 6 - High water level in wet well caused system to go into alarm.	19.25
10/14/04 6:20 PM	10/14/04 6:45 PM	Performance Monitoring - Inspected system operation to determine reason for reoccurring high water level alarm condition in wet well.	0.42
10/22/04 1:45 PM	10/22/04 5:05 PM	Alarm Condition No. 6 - High water level in wet well caused system to go into alarm.	3.33
10/28/04 1:45 PM	10/28/04 5:00 PM	Alarm Condition No. 6 - High water level in wet well caused system to go into alarm	3.25
10/31/04 11:00 AM	11/1/04 9:45 AM	Alarm Condition No. 6 - High water level in wet well caused system to go into alarm. Decreased discharge line pressures in valve vault to relieve potential strain on wet well submersible pumps, which appeared to have caused the continuing alarm conditions in the wet well.	22.75
11/12/04 9:20 AM	11/15/04 6:00 PM	Performance Monitoring - Shut down system for scheduled blower maintenance event.	80.67
1/3/05 5:40 PM	1/3/05 6:45 PM	System Troubleshooting - EW-2 flow reading showing 0.0 GPM. Fan wheel of flow sensor cleaned and system restarted.	1.08
1/14/05 8:00 AM	1/15/05 5:00 PM	General Alarm - Power failure caused system to shut down. Variable frequency drives (VFD) for EW-1 and EW-2 needed to be reset. EW-2 VFD was reset on 1/17/05 due to difficulties in reseting frequencies to establish a constatnt flow.	33.00
1/18/05 8:45 AM	1/19/05 8:30 AM	Performance Monitoring - Shut down system due to elevated Total VOC concentrations measured at the inlet and outlet of each vapor carbon adsorption vessel on the morning of 1/18/05. Measurements were deemed to be erroneous due to malfunctioning photo-ionization detector (PID). Restarted system on 1/19/05 and collected samples from the inlet and outlet of each vapor carbon adsorption vessel. All PID readings were non-detect.	23.75
1/25/05 1:45 PM	1/25/05 4:00 PM	Performance Monitoring - Shut down system for scheduled blower maintenance event.	2.25
2/13/05 6:46 AM	2/14/05 4:00 PM	Alarm Condition No. 6 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button, pump #2 started to run. Drained wet well to low level float. Restarted system.	33.23
3/1/05 12:10 AM	3/1/05 8:55 AM	Alarm Condition No. 6 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button, submersible pump #2 starts pumping. Drained wet well to low level float. Restarted system.	8.75
3/1/05 10:47 AM	3/2/05 8:45 AM	Alarm Condition No. 6 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button, submersible pump #2 starts pumping. Drained wet well to low level float. Restarted system.	21.97
3/12/05 3:17 AM	3/14/05 9:05 AM	Alarm Condition No. 6 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button, submersible pump #2 starts pumping. Drained wet well to low level float. Restarted system.	53.80
3/21/05 9:03 AM	3/21/05 10:43 AM	Performance Monitoring - Shut down system for scheduled blower maintenance event.	1.67
4/2/05 6:15 PM	4/4/05 8:45 AM	Alarm Condition No. 6 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button, submersible pump #2 starts pumping. Drained wet well to low level float. Restarted system.	38.50
6/4/05 1:56 AM	6/6/05 8:45 AM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	54.82

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
6/11/05 12:30 AM	6/13/05 8:45 AM	Alarm Condition No. 6 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 reset button, submersible pump #1 starts pumping. Drained wet well to low level float. Restarted system.	56.25
6/15/05 8:10 AM	6/15/05 10:00 AM	Performance Monitoring - Shut down system for scheduled blower maintenance event.	1.83
7/1/05 4:00 PM	7/1/05 4:45 PM	Performance Monitoring - Shut down system for system training.	0.75
7/5/05 11:01 AM	7/5/05 11:16 AM	Performance Monitoring - Shut down system to clean fresh air inlet screen.	0.25
7/8/05 6:10 PM	7/10/05 10:30 AM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system. Extraction well pump failure. Reset VFD #1 & #2. Restarted system.	40.33
7/13/05 10:21 AM	7/13/05 4:45 PM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	6.40
7/17/05 8:31 AM	7/18/05 5:10 PM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	32.65
7/27/05 10:16 PM	7/28/05 10:45 AM	Alarm Condition No. 6 & 8 - High water level in valve vault sump. Restarted blower. Pumped water from valve vault sump into low-profile air stripper via connection on extraction well #1 inlet pipe. Flushed sump with clean water. Restarted extraction wells.	12.48
7/28/05 5:56 PM	7/29/05 11:47 AM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	17.85
8/5/05 7:23 PM	8/8/05 10:05 AM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	62.70
8/8/05 11:58 AM	8/8/05 12:20 PM	Performance Monitoring - Valve vault sump near high level. Turned off extraction wells. Pumped water from valve vault sump into low-profile air stripper via connection on extraction well #1 inlet pipe. Flushed sump with clean water. Restarted extraction wells.	0.37
8/14/05 8:35 AM	8/15/05 10:34 AM	Alarm Condition No. 6 & 8 - Electricity outage caused a high water level in wet well. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	25.98
8/19/05 7:53 AM	8/19/05 9:28 AM	Performance Monitoring - Shut down system for scheduled blower maintenance event.	1.58
8/23/05 8:45 AM	8/23/05 11:00 AM	Performance Monitoring - Testing alarm conditions for autodialer.	2.25
8/24/05 3:40 AM	8/24/05 4:11 PM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	12.52
8/25/05 11:19 AM	8/25/05 4:09 PM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	4.83
8/31/05 1:59 PM	8/31/05 6:10 PM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	4.18
9/1/05 9:15 PM	9/2/05 10:45 AM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	13.50
9/4/05 10:00 AM	9/6/05 8:45 AM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. MiniCas #1 & #2 reset. Drained wet well to low level float. Restarted system. Will troubleshoot system due to high alarm frequency.	46.75
9/7/05 9:30 AM	9/7/05 10:10 AM	System Maintenance - On-site with EnviroTrac to diagnose wet well high high level alarms. Checked effluent pump operation, check valves, and final discharge point. Adjusted discharge pipes for even effluent flow. Restarted system.	0.67
9/13/05 8:38 AM	9/13/05 8:38 AM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	0.00
10/1/05 3:14 PM	10/2/05 10:25 AM	Alarm Condition No. 6 & 8 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 & #2 reset buttons. Drained wet well to low level float. Restarted system.	19.18
10/4/05 9:05 AM	10/4/05 10:30 AM	System Maintenance - Tested autodialer with J.K. Electric.	1.42
10/7/05 9:05 AM	10/7/05 10:32 AM	System Maintenance - On-site with J.K. Electric to revise autodialer alarm conditions and replace broken run time meters for extraction well EW-2 and pressure blower. Alarm points set as follows: (1)Temperature Alarm, (2)Building Entry Alarm, (3)General System Alarm, (4)General Failure Submersible Pump (Wet Well) Alarm, (5)General Failure EW-1/EW-2 Alarm, (6)Pressure Blower Fail Alarm, (7)High Level Air Stripper Sump Alarm, (8)High Level Valve Vault Sump Alarm	1.45
10/22/05 10:44 PM	10/24/05 10:13 AM	Alarm Condition No. 3 & 5 - VFD overload caused extraction wells to go into alarm. Reset both VFD's. Performance Monitoring - Scheduled blower maintenance event. Blower V-belt replaced due to minor wear noted during previous maintenance event.	35.48

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
10/26/05 10:30 AM	10/26/05 3:20 PM	Alarm Condition No. 3 - Wet well high level light illuminated on system control panel. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button, pump #2 turned on. Drained wet well to low level float. Restarted system.	4.83
10/26/05 3:40 PM	10/26/05 4:20 PM	System Maintenance - EW-1 flow meter not responding. Shut down system to inspect paddle wheel. Iron buildup observed on paddle wheel. Cleaned paddle wheel and restarted system.	0.67
10/29/05 6:54 AM	10/31/05 10:15 AM	Alarm Condition No. 3 - Wet well high level light illuminated on system control panel. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button - no response. Reset pump control panel, pump #1 turned on. Drained wet well to low level float. Restarted system.	51.35
11/13/05 8:04 AM	11/14/05 10:14 AM	Alarm Condition No. 3 - Wet well high level light illuminated on system control panel. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button - no response. Press both MiniCas #1 and #2 reset buttons simultaneously, pump #1 turned on. Drained wet well to low level float. Restarted system.	26.17
11/15/05 4:11 AM	11/15/05 11:30 AM	Alarm Condition No. 3 & 5 - VFD #1 overload error. Reset VFD #1, restarted system, VFD #1 overload remains. Notified NYSDEC of VFD #1 overload condition. Restarted only EW-2.	7.32
11/17/05 9:10 AM	11/17/05 9:35 AM	System Maintenance - On-site with EnviroTrac (ET) to diagnose VFD #1 overload condition. ET determined that extraction well EW-1 well pump needs to be serviced due to an unknown load on the pump. Notified NYSDEC of continuing overload condition in VFD #1 and discussed procedure for servicing extraction well EW-1 well pump. Restarted only EW-2.	0.42
12/5/05 5:53 PM	12/6/05 10:25 AM	Alarm Condition No. 3 - Wet well high level light illuminated on system control panel. Press MiniCas #1 reset buttons - no response. Press MiniCas #2 reset buttons - no response. Press both MiniCas #1 and #2 reset buttons simultaneously, pump #2 turned on. Drained wet well to low level float. Restarted EW-2.	16.53
12/16/05 2:00 AM	12/20/05 5:45 PM	Alarm Condition No. 7 - High level air stripper sump caused by malfunctioning float switch. Repaired float switch and restarted EW-2.	111.75
12/20/05 7:19 PM	12/21/05 10:05 AM	Alarm Condition No. 3 - Wet well high level light lit on system control panel. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button, pump #2 turned on. Drained wet well to low level float. Restarted EW-2.	14.77
1/5/06 11:59 PM	1/6/06 2:45 PM	Alarm Condition #3 & #6 - Pressure blower failure alarm cause by a tripped breaker inside blower circuit panel. Reset breaker. Restarted EW-2.	14.77
2/14/06 12:30 PM	2/15/06 11:00 AM	Performance Monitoring - Shutdown system due to elevated VOC readings detected at the inlet and outlet of VPCV No. 1 and No.2. Contacted NYSDEC regarding system shutdown. NYSDEC decided to turn system back on and test vapor units with different PID unit. Performance Monitoring - Scheduled blower maintenance event (2/15/06 8:45 AM).	22.50
2/17/06 2:00 PM	2/21/06 11:30 AM	Alarm Condition No. 3 - Wet well high level light illuminated on system control panel. Press MiniCas #1 reset button - no response. Press MiniCas #2 reset button - no response. Press both MiniCas #1 and #2 reset buttons simultaneously, pump #1 turned on. Drained wet well to low level float. Restarted EW-2.	93.50
3/15/06 9:30 AM	3/15/06 10:05 AM	Performance Monitoring - Routine inspection of treatment system components.	0.58
4/14/06 9:00 AM	4/14/06 9:40 AM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 and #2 reset buttons, however, submersible pumps did not restart. Power to pump control panel turned off and then on again. Submersible pump No. 2 turned on. Drained wet well and restarted system.	0.67
4/25/06 10:36 PM	4/26/06 5:38 PM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 and #2 reset buttons, however, submersible pumps did not restart. Power to pump control panel turned off and then on again. Submersible pump No. 2 turned on. Drained wet well and restarted system.	19.03
4/27/06 9:24 AM	4/27/06 10:40 AM	Blower Maintenance - Turn off system for maintenance and restarted system once maintenance was completed.	1.27
5/5/06 9:08 AM	5/5/06 1:30 PM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 and #2 reset buttons, however, submersible pumps did not restart. Power to pump control panel turned off and then on again. Submersible pump No. 2 turned on. Drained wet well and restarted system.	4.37
5/10/06 2:19 PM	5/10/06 3:55 PM	Alarm Condition No. 3 - Wet well high level light illuminated on system control panel. Press MiniCas #1 reset buttons, submersible pump No.1 did not restart. Press MiniCas#2 reset button, submersible pump No.2 restarted - pumps functioned. Drained wet well and restarted system.	1.60
6/19/06 8:03 AM	6/19/06 4:30 PM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 reset button, submersible pump No. 2 turned on. Also turned on submersible pump No. 1. Drained wet well and restarted system.	8.45

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
6/25/06 3:30 PM	6/26/06 4:00 PM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 and #2 reset buttons, however, submersible pumps did not restart. Power to pump control panel turned off and then on again. Submersible pump No. 2 turned on. Drained wet well and restarted system.	24.50
6/28/06 11:58 PM	6/30/06 11:25 AM	Alarm Condition No. 3 & 5 - EW-2 failure caused the system to go into alarm. Opened VFD panel and VFD #2 alarm light blinking. Reset VFD #2. Open wet well and water not at high level. Blower Maintenance - Performed routine blower maintenance and restarted system once maintenance was completed.	35.45
7/4/06 5:50 PM	7/6/06 3:20 PM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 and #2 reset buttons, submersible pump No. 1 turned on. Submersible pump No. 2 turned on manually. Drained wet well and restarted system.	45.50
7/19/06 12:51 AM	7/19/06 3:00 PM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 and #2 reset buttons, however, submersible pumps did not restart. Power to pump control panel turned off and then on again. Submersible pump No. 1 turned on. Drained wet well and restarted system.	14.15
7/21/06 6:15 PM	7/22/06 4:55 PM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 and #2 reset buttons, however, submersible pumps did not restart. Power to pump control panel turned off and then on again. Submersible pump No. 2 turned on. Drained wet well and restarted system.	22.67
7/22/06 6:40 PM	7/24/06 5:00 PM	Alarm Condition No. 5 - EW-2 failure caused system to go into alarm. Opened VFD panel and VFD #2 alarm light blinking. Reset VFD #2. Restarted system.	46.33
7/24/06 7:50 PM	7/25/06 4:30 PM	Alarm Condition No. 3 & 5 - EW-2 failure caused the system to go into alarm. Opened VFD panel and VFD #2 alarm light blinking. Reset VFD #2. Restarted system.	20.67
7/25/06 4:45 PM	7/25/06 5:00 PM	Alarm Condition No. 3 & 5 - EW-2 failure caused the system to go into alarm. Opened VFD panel and VFD #2 alarm light blinking. Reset VFD #2. Restarted system.	0.25
7/25/06 5:25 PM	9/7/06 2:00 PM	Alarm Condition No. 3 & 5 - EW-2 failure caused the system to go into alarm. Extraction well EW-2 VFD continues to go into alarm due to an overload condition. Notified NYSDEC and system shut down pending repair of extraction well EW-2.	1052.58
9/19/06 9:25 AM	9/19/06 10:50 AM	Blower Maintenance - Performed routine blower maintenance and restarted extraction well pump EW-1 once maintenance was completed.	1.42
10/28/06 6:20 AM	10/30/06 3:05 PM	Alarm Condition No. 3 - High water level in wet well caused the system to go into alarm. Press MiniCas #1 and #2 reset buttons, wet well submersible pump No. 2 turned on. Drained wet well and restarted extraction well pump EW-1.	56.75
12/2/06 3:00 AM	12/2/06 5:10 PM	Alarm Condition No. 4 - High wet well light on - well is not high - water level very low, on & off and low level lights on. Press MiniCas #1 and #2 reset buttons, breaker reset, lights still on. Fill up wet well above low floats. Switch pumps to auto.	14.17
12/6/06 1:50 PM	12/6/06 4:30 PM	Blower Maintenance - Performed routine blower maintenance and restarted extraction well pump EW-1 once maintenance was completed.	2.67
12/19/06 9:15 AM	12/19/06 1:30 PM	Submersible Wet Well Pump Maintenance - Performed annual wet well pump maintenance. Also adjusted heights of wet well floats. Restarted EW-1 once maintenance was completed.	4.25
2/13/07 2:17 PM	2/13/07 3:10 PM	Blower Maintenance - Performed routine blower maintenance and restarted extraction well pump EW-1 once maintenance was completed.	0.88
2/14/07 4:45 PM	2/15/07 3:40 PM	Alarm Condition No. 3 - High high wet well. Turn sump pump breaker on/off. Purge wet well. Turn system on.	22.92
3/25/07 7:00 PM	3/27/07 3:20 PM	Alarm condition No. 3 - High high wet well. Turn wet well breaker off then on. Purge wet well. Restarted system.	44.33
4/2/07 9:30 AM	4/3/07 3:30 PM	Alarm condition No. 3 - High high wet well. Turn wet well breaker off then on. Purge wet well. Restarted system.	30.00
4/16/07 2:30 PM	4/16/07 3:40 PM	Alarm condition No. 3 - High high wet well. Turn wet well breaker off then on. Purge wet well. Restarted system.	1.17
4/17/07 10:00 AM	4/19/07 3:30 PM	Alarm condition No. 3, 4 and 5 - EW-1 alarm. Reset EW-1 VFD and reset main control panel. Restarted system.	53.50
4/25/07 8:40 AM	4/25/07 9:20 AM	Blower Maintenance - Performed routine blower maintenance and restarted system once maintenance was completed.	0.67
4/30/07 5:55 PM	5/2/07 9:00 AM	Alarm condition No. 3 - High high wet well. Turn wet well breaker off then on. Purge wet well. Restarted system.	39.08
5/26/07 5:00 PM	5/29/07 4:45 PM	Alarm condition No. 3 - High high wet well. Turn wet well breaker off then on. Purge wet well. Restarted system.	71.75

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
6/5/07 2:45 PM	6/8/07 5:50 PM	Alarm condition No. 3 - EW-1 failure. EW-1 pressure gauge stuck at 15.5 psi, and system will not restart. On-site at a later date with Systematic Technologies to diagnose system. Tried to remove water level meter for inspection but was unsuccessful. Lowered probes to original height. Reset control panel and system started up successfully. Shutdown system momentarily to clean influent flow meter and restarted system.	75.08
6/21/07 6:35 PM	6/22/07 4:30 PM	Alarm condition No. 3 - High high wet well. Reset wet well pump circuit breaker. Purge wet well to low level. Restart system.	21.92
6/24/07 12:50 PM	6/26/07 3:00 PM	Alarm condition No. 3 - High high wet well. Reset wet well pump circuit breaker. Purge wet well to low level. Restart system.	50.17
6/28/07 11:45 AM	6/28/07 4:45 PM	Blower Maintenance/Non-routine Maintenance - Performed routine blower maintenance. Reset wet well pumps. Install new level probes in EW-1. Restarted extraction well pump EW-1 once maintenance was completed.	5.00
7/1/07 1:00 AM	7/1/07 1:00 PM	Alarm condition No. 3 - High high wet well. Reset wet well pump circuit breaker. Purge wet well to low level. Restart system.	12.00
7/5/07 1:45 AM	7/6/07 5:50 PM	Alarm condition No. 3 - High high wet well. Reset wet well pump circuit breaker. Purge wet well to low level. Restart system.	40.08
7/13/07 5:33 PM	7/14/07 12:20 PM	Alarm condition No. 3 - High high wet well. Reset wet well pump circuit breaker. Purge wet well to low level. Restart system.	18.78
7/18/07 7:55 AM	7/19/07 8:55 AM	Alarm condition No. 3 - High high wet well. Reset wet well pump circuit breaker. Purge wet well to low level. Restart system.	25.00
7/29/07 1:00 PM	7/30/07 3:50 PM	Alarm condition No. 3 - High high wet well. Reset wet well pump circuit breaker. Purge wet well to low level. Restart system.	26.83
7/30/07 4:10 PM	8/10/07 2:30 PM	Alarm condition No. 3 - High high wet well. Loose thermal overload wire causing pump to not come on. Tightened wire on thermal overload component and replace possible malfunctioning float. Restart system.	262.33
8/17/07 4:10 PM	8/17/07 5:30 PM	Non-routine Maintenance - Install new "Pump On" high level float in wet well.	1.33
8/30/07 8:30 AM	8/30/07 7:35 PM	Non-routine Maintenance - Pull and replace EW-2 pump, motor and down-well cables. Installed new level probes. Restarted both extraction wells once maintenance was completed.	11.08
9/18/07 10:00 AM	9/18/07 1:30 PM	Non-routine maintenance event: Diagnosed recurring wet well alarm condition.	3.50
9/30/07 7:00 AM	10/11/07 5:45 PM	Alarm condition #3 - High high wet well. Restart system after purging wet well; system went into alarm condition #4, Sub pump fail. Trouble-shoot problem; floats in well were malfunctioning; change high and low-low floats. Restarted system.	274.75
10/27/07 4:30 AM	10/27/07 10:55 AM	Alarm condition #3 - High high wet well. Turn pump breaker on/off. Purge wet well. Restart system.	6.42
11/24/07 3:15 PM	11/26/07 12:30 PM	Alarm condition #2 & #3 - General alarm/High high wet well. Turn pump breaker on/off. Purge wet well. Restart system.	45.25
12/14/07 12:54 PM	12/15/07 8:50 AM	Alarm condition #3 - High high wet well. Turn pump breaker on/off. Purge wet well. Restart system.	19.93
12/16/07 9:30 AM	12/17/07 8:30 AM	Alarm condition #3 - High high wet well. Turn pump breaker on/off. Purge wet well. Restart system.	23.00
12/23/07 7:30 AM	12/24/07 11:35 AM	Alarm condition #3 - High high wet well. Turn pump breaker on/off. Purge wet well. Restart system.	28.08
1/3/08 2:30 PM	1/3/08 3:00 PM	Routine blower maintenance.	0.50
1/18/08 4:47 AM	1/18/08 11:50 AM	Alarm conditions #3 & 5 - High high wet well. Turn pump breaker on/off. Purge wet well. Restart system.	7.05
1/30/08 9:00 AM	1/31/08 6:00 PM	Alarm conditions #3 & 5 - High high wet well. Turn pump breaker on/off. Purge wet well. Restart system.	33.00
2/26/08 1:39 AM	2/26/08 2:20 PM	Alarm conditions #3 & 5 - High high wet well. Turn pump breaker on/off. Purge wet well. Restart system.	12.68
2/28/08 2:30 PM	2/28/08 3:00 PM	Routine blower maintenance.	0.50
3/5/08 4:25 AM	3/5/08 2:25 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	10.00
3/9/08 12:50 AM	3/9/08 7:20 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	6.50

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
3/23/08 12:16 AM	3/23/08 4:15 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	15.98
4/17/08 9:00 AM	4/17/08 4:45 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	7.75
4/23/08 4:00 AM	4/24/08 12:00 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	32.00
5/1/08 2:00 PM	5/2/08 5:00 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float.	27.00
5/6/08 1:45 PM	5/6/08 4:45 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	3.00
6/8/08 5:35 PM	6/9/08 1:40 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	20.08
6/11/08 1:25 PM	6/11/08 2:00 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	0.58
6/14/08 7:06 AM	6/16/08 9:20 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	50.23
6/16/08 9:21 AM	6/20/08 2:45 PM	Pressure Blower Failure. L. Sorensen determined cooling fan shorting fuse in (6/17) blower motor starter. Luke to order new fan to replace. Fan replaced and system restarted.	101.40
7/1/08 5:27 PM	7/2/08 8:00 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	14.55
7/23/08 9:50 AM	7/24/08 7:05 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	33.25
7/27/08 9:45 AM	7/28/08 5:50 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	32.08
8/14/08 12:00 AM	8/15/08 4:00 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	40.00
8/20/08 2:00 AM	8/21/08 2:55 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	36.92
8/21/08 3:00 PM	8/21/08 4:15 PM	Routine Maintenance and Blower Maintenance. Restarted system.	1.25
8/27/08 2:30 AM	8/28/08 4:35 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	26.08
9/11/08 5:18 AM	9/11/08 10:40 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	5.37
9/24/08 10:40 AM	9/24/08 2:05 PM	Routine Wet Well Pump Maintenance. Restarted system.	3.42
10/17/08 5:00 PM	10/18/08 2:00 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	21.00
10/25/08 10:00 PM	10/27/08 7:30 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	33.50
10/29/08 1:00 PM	10/30/08 4:35 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	27.58
11/6/08 7:00 AM	11/6/08 7:20 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Observed discharge pipe in storm sewer while pumping; water above discharge pipe. Restart system.	0.33
11/18/08 10:14 AM	11/18/08 2:20 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Observed discharge pipe in storm sewer while pumping; water above discharge pipe. Restart system.	4.10
11/24/08 12:15 PM	11/24/08 4:30 PM	Alarm Conditions #3 & #5 - Failure EW-1/EW-2: Restart VFDs, restart system. System restarted though both wells not pumping. Shut down system, reset power to entire system. Restart system successfully.	4.25
12/17/08 10:05 AM	12/17/08 10:40 AM	Routine Pressure Blower Maintenance. Restarted system.	0.58

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
12/20/08 11:38 AM	12/22/08 4:00 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	52.37
1/28/09 5:50 AM	1/28/09 7:20 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	1.50
1/28/09 8:45 PM	1/29/09 8:40 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	11.92
2/6/09 11:10 AM	2/6/09 11:55 AM	Non-Routine Maintenance - Disassembled influent flow meters to clean paddel wheels. Restart system.	0.75
2/22/09 7:08 AM	2/23/09 4:34 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	33.43
2/23/09 11:56 PM	2/24/09 5:10 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wetwell down past shutoff float. Restart system.	17.23
3/5/09 1:40 PM	3/5/09 2:10 PM	Routine Pressure Blower Maintenance. Restarted system.	0.50
4/11/09 5:00 AM	4/15/09 3:30 PM	Alarm Condition #3 - High Wet Well: Tripped breaker which activated the pump, pumping the wet well level down. Once the level was low, attempted to reset the alarm. System would not restart. Tripped main breaker three times trying to restart the system. This action did not work either. Then noticed alarm for pressure blower was activated. Checked voltage and breaker. Flipped breaker on main board back on and restarted. Shut down occured most likely due to power surge.	106.50
4/24/09 10:56 AM	4/24/09 5:47 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	6.85
4/26/09 8:25 AM	4/28/09 2:35 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	54.17
4/30/09 6:39 AM	4/30/09 10:00 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	3.35
5/4/09 6:30 PM	5/5/09 10:30 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	16.00
5/7/09 5:00 AM	5/7/09 4:00 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	11.00
5/8/09 5:30 PM	5/10/09 8:15 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	50.75
5/12/09 11:30 AM	5/12/09 12:00 PM	Routine Pressure Blower Maintenance. Restarted system.	0.50
5/31/09 6:34 AM	6/1/09 7:00 PM	Alarm Condition #3 & #5 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	36.43
6/9/09 3:36 AM	6/9/09 4:55 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	13.32
6/12/09 3:20 AM	6/12/09 6:00 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	14.67
6/24/09 2:23 PM	6/24/09 3:30 PM	Routine Pressure Blower Maintenance. Restarted system.	1.12
6/29/09 8:45 AM	6/29/09 12:45 PM	Non-routine maintenance: Installed new sensaphone autodialer to replace malfunctioning unit.	4.00
7/2/09 8:15 PM	7/5/09 8:30 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	60.25
7/8/09 12:07 AM	7/8/09 5:50 PM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	17.72
7/15/09 4:16 PM	7/15/09 4:30 PM	Non-routine maintenance: Training for new employee.	0.23
7/26/09 7:05 AM	7/27/09 7:16 AM	Alarm Condition #3 - High Wet Well: Trip breaker on wet well pumps. Pump wet well down past shutoff float. Restart system.	24.18
8/13/09 7:20 AM	8/13/09 8:04 AM	Routine Pressure Blower Maintenance. Restarted system.	0.73
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SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
9/1/09 9:10 PM	9/2/09 2:43 PM	Alarm Condition #3 & #5 - Tripped breaker for wet well pumps. Reset EW-1 VFD drive. Restarted system.	17.55
9/3/09 8:00 AM	9/3/09 8:09 AM	Alarm Condition #3 & #5 - Tripped breaker for wet well pumps. Reset EW-2 VFD drive (OL-2 condition). Restarted system.	0.15
9/3/09 2:50 PM	9/4/09 8:30 AM	EW-1/EW-2 exhibited a flow rate of 0.0. Inspected system and reset main control panel. Restarted system and observed EW-1/EW-2. Both pumping at normal rates.	17.67
10/5/09 3:38 PM	10/5/09 4:15 PM	Routine Pressure Blower Maintenance. Restarted system.	0.62
10/7/09 11:59 AM	10/7/09 6:07 PM	Alarm Condition #3 - High-high wet well alarm. Reset wet well panel. Pumped wet well to low level and restarted system.	6.13
10/20/09 10:18 AM	10/20/09 11:23 AM	Routine Submersible Wet Well Pump Maintenance. Restarted system.	1.08
10/28/09 6:00 AM	10/28/09 12:18 PM	Alarm Condition #2 - Reset VFDs. Restarted system.	6.30
10/28/09 12:40 PM	10/28/09 2:27 PM	Alarm Condition #3 & #8 - High Level Valve Vault Sump Alarm. Wet well sump overflowed and caused the valve vault sump to fill and trigger an alarm. Pumped valve vault sump to air stripper. Pumped wet well to low lever. Adjusted high level float. Restarted system.	1.78
11/19/09 4:59 PM	11/20/09 9:45 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	16.77
11/30/09 11:49 AM	11/30/09 4:35 PM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	4.77
1/21/10 11:00 AM	1/21/10 3:00 PM	Non-routine: Replace influent flow meters.	4.00
1/28/10 9:30 AM	1/28/10 4:00 PM	Routine Maintenance: air stripper.	6.50
2/1/10 9:00 AM	2/1/10 11:45 AM	Non-routine: Replace powerwasher circuit breaker.	2.75
2/2/10 9:00 AM	2/2/10 5:15 PM	Routine Maintenance: air stripper.	8.25
3/11/10 10:15 AM	3/11/10 2:00 PM	Routine Blower Maintenance and Non-Routine: Replace flow meter T's.	3.75
3/16/10 11:30 PM	3/17/10 11:00 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	11.50
3/18/10 11:45 AM	3/18/10 1:30 PM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	1.75
3/20/10 12:00 AM	3/20/10 2:00 PM	Wet well alarm, EW-1 under voltage.	14.00
4/8/10 10:56 AM	4/8/10 11:46 AM	Blower Maintenance - Turn off system for maintenance and restarted system once maintenance was completed.	0.83
4/16/10 9:15 PM	4/17/10 8:17 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	11.03
4/21/10 4:49 AM	4/21/10 10:21 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	5.53
5/4/10 5:10 AM	5/4/10 10:05 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	4.92
5/12/10 12:30 AM	5/12/10 10:00 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	9.50
5/13/10 2:00 PM	5/13/10 2:27 PM	Non-routine: Clean paddle wheel.	0.45
5/28/10 11:45 AM	5/28/10 12:15 PM	Non-routine: Clean paddle wheel and inlet screen.	0.50
6/2/10 12:39 PM	6/2/10 1:40 PM	Alarm condition: did not call out.	1.02

FRANKLIN CLEANERS SITE NYSDEC CONTRACT No. D004264 / SITE No. 1-30-050 APPENDIX A - DETAILS OF SYSTEM SHUTDOWNS AND MAINTENANCE EVENTS

SHUT-OFF DATE/TIME	RESTART DATE/TIME	CAUSE FOR SHUTDOWN	TOTAL DOWNTIME (HOURS)
6/10/10 11:51 AM	6/10/10 11:55 AM	Non-routine: Clean inlet screen.	0.07
6/17/10 1:03 PM	6/17/10 2:14 PM	Non-routine: Blower/EW-2 flow sensor, clean inlet, adjust floats in WW.	1.18
6/22/10 2:42 AM	6/22/10 11:22 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	8.67
6/24/10 2:36 PM	6/25/10 6:50 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	16.23
6/25/10 3:29 PM	7/1/10 10:30 AM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	139.02
7/1/10 11:00 AM	7/1/10 11:23 AM	Obtain WW pump info.	0.38
7/12/10 9:45 AM	7/12/10 12:20 PM	Routine Submersible Wet Well Pump Maintenance. Restarted system.	2.58
7/19/10 10:30 AM	7/19/10 12:33 PM	Alarm Condition #3 & #5 - High-high wet well alarm. Tripped breaker for wet well pumps. Pumped wet well to low level and restarted system.	2.05
7/23/10 1:23 PM	7/26/10 1:15 PM	Non-routine: shut down system while monitoring MW water levels.	71.87
7/30/10 9:55 AM	7/30/10 10:45 AM	Non-routine: Clean EW-2 sensor, clean air inlet.	0.83
8/26/10 10:35 AM	8/26/10 11:10 AM	Non-routine: Clean EW-2 sensor, clean air inlet, fix leak for purge water inlet.	0.58
8/30/10 7:15 PM	9/22/10 10:30 AM	Non-routine: Order and replace wet well pump part.	543.25
11/12/10 10:28 AM	11/12/10 10:36 AM	Non-routine: Clean fresh air inlet.	0.13
11/29/10 1:22 PM	11/29/10 1:30 PM	Non-routine: Clean flow sensor paddle wheel.	0.13
12/2/10 11:50 AM	12/2/10 12:12 PM	Non-routine: Clean flow sensor paddle wheel.	0.37
12/22/10 11:34 AM	12/22/10 12:04 PM	Non-routine: Clean flow sensor paddle wheel.	0.50

APPENDIX B

NON-ROUTINE MAINTENANCE REPORTS

		MAINTENANC	E AND INSPEC	FION REPORT		· ·
	FRAN	KLIN CLEANE	RS SITE, ROCK	VILLE CENTRE,	NY	· · · ·
Date:March 21, 2005			-			
Name of Personnel O	nsite	Title	Time Arrived	Time Departed	Total Hours	
Steve Sussman		Sr. Technician	08:45	10:45	2.0 + (1 hour pi	rep /travel to & from)
	Removal ure Blower Mainten sure Blower Fan Wh nspected "V" belts c . Secured bolts at t	eel Replacement on shaft pulleys, c he belt guard. Re	t	V" belt. Greased fitti	Removal and Repland Repland Repland Repland Repland Replacements and Replacements and Repland Replacements and Repland Replacements and Replac	ver shaft. Greased
Name of Part / Supply	/ Material	Manufactur	er	Model Numbe	r	Quantity Used
Grease		Mobil				Approx. 0.4 oz
Description of Waste No Waste In signing this I hereby conform to the require	Volume of Waste y certify that to the I	pest of my knowle der contract betw	een EnviroTrac Ltd.	ce and inspection ac	ame & Address tivities performed rtilucci.	Method of Disp.
	- A. Fisrentr.	<u>يو Signatur</u>	e / Print / Date	· · · · · · · · · · · · · · · · · · ·		
	6/301	05				

	MAINTENAN	ICE AND INSPECTIO	ON REPORT	· · · · · · · · · · · · · · · · · · ·	
		IERS SITE, ROCKV		IY	
Date:June 15, 2005				2 3 	
Name of Personnel Onsite	Title	Time Arrived	Time Departed	Total Hours	
Steve Sussman	Sr. Technician		10:30	and the second	o /travel to & from)
				· · · · · · · · · · · · · · · · · · ·	
				······································	
Check off Items that were comple Item 1: Snow Removal X Item 2: Pressure Blower Item 2A: Pressure Blower Description of Work: Inspected "N fitting on Baldor motor. Secured I rotation and cleanliness. Checker	Maintenance Fan Wheel Replaceme /" belts on shaft pulleys, polts at the belt guard. F	nt It checked tension of "V"	em 3: Air Stripper em 4: Carbon Rer em 5: Non-routine belt. Greased fittings and flange at blower	noval and Repl Maintenance	
Name of Part / Supply / Material	Manufacti	urer	Model Number		Quantity Used
Grease	Mobil		Mobilith AW2		
					Approx. 0.5 oz
Description of Waste Volume of No Waste	Waste Disposal F	Facility Name & Address	Transporter Nam	ne & Address	

		MAINTENANC	E AND INSPECTI	ON REPORT		
	FRAN	KLIN CLEANE	RS SITE, ROCKV	ILLE CENTRE,	NY	
Date:August 19, 2008	5					·
Name of Personnel O		Title	Time Arrived	Time Departed	Total Hours	
Steve Sussman		Sr. Technician	07:30	/travel to & from)		
Chook off Itoma that u			<u> </u>			
Check off Items that w Item 1: Snow				Item 3: Air Strippe	er Maintenance	
	ure Blower Mainten			Item 4: Carbon Re		acement
Li Item 2A: Press	sure Blower Fan Wh	ieel Replacement		Item 5: Non-routir	ne Maintenance	
Description of Work: I	nspected "V" belts o	on shaft pulley, m	inor wear and crackir	g observed on the t	hree belts, check	ed tension of "V"
belt. Greased fittings f	for belt to blower sh	aft. Greased fittin	g on Baldor motor. Se	ecured bolts at the t	celt guard. Remo	ved butterfly valve
and flange at blower in	nlet, inspected fan v	wheel for rotation	and cleanliness. Che	cked all center mou	int bolts. Restarte	d blower.
Name of Part / Supply	/ Material	Manufactur	er	Model Number	•	Quantity Used
Grease		Mobil		Mobilith AW2	Mobilith AW2	
L						
	- * * ************************					
Description of Waste No Waste	Volume of Waste	Disposal Fa	acility Name & Addres	s Transporter Na	ame & Address	Method of Disp.
110 Waste			<u></u>			

			***************************************			······
In signing this I hereb	y certify that to the	best of my knowle	edge the maintenance	and inspection act	ivities performed	during this event
conform to the require	ements specified un	der contract betw	/een EnviroTrac Ltd.,	and Dvirka and Bar	tilucci.	Ŭ
Jan Fin	lation	. Signatur	e / Print / Date	8/19/05	-	

	Μ	AINTENANC	E AND INSPECTI	ON REPORT		
<u> </u>	FRANK	LIN CLEANE	RS SITE, ROCKV	ILLE CENTRE,	NY	
Date: 9/7/05	·		-			
Name of Personnel Or	nsite Ti	tle	Time Arrived	Time Departed	Total Hours	
Thomas Hug	E	ngineer	0600	1200	6	
	,					
	~					
				Item 3: Air Strippe Item 4: Carbon Re Item 5: Non-routir	emoval and Repla	acement
Description of Work: Client stated that wet y to inspect for iron build proper flow. System o	d up in line close che	ck valve and ad				
Name of Part / Supply	/ Material	Manufactur	er	Model Number	-	Quantity Used
Description of Waste	Volume of Waste	Disposal Fa	acility Name & Addres	s Transporter Na	ame & Address	Method of Disp.
In signing this I hereby conform to the require Thomas	y certify that to the be ments specified unde ולעים	er contract betw	edge the maintenance een EnviroTrac Ltd e / Print / Date	and inspection act and Dvirka and Bar	ivities performed tilucci.	during this event
L; <u>nom(4)</u>		Olghatar		. 0 .	<u> </u>	

			E AND INSPECT			
	FRANK	LIN CLEANE	ERS SITE, ROCK	VILLE CENTRE,	NY	
Date: 10/24/05						
Name of Personnel O	nsite T	itle	Time Arrived	Time Departed	Total Hours	
Steve Sussman		Sr. Technician	09:00	10:30	3 - (1.5 hour pr	ep /travel to & from)
Jim Wilkinson	S	Sr. Technician	09:00	10:30		
	Removal sure Blower Maintena sure Blower Fan Whe Replaced "V" belts on on Baldor motor. Sec	el Replacemen shaft pulley, th cured bolts at the	t ree belts total, check e belt guard. Remove	ed butterfly valve an	Removal and Repl ine Maintenance elts. Greased fittin	gs for belt to blower
Name of Part / Supply	/ Material	Manufactur	er	Model Numbe	<u>ا</u>	Quantity Used
Grease		Mobil	<u> </u>	Model Number		Approx. 0.33 oz
Description of Waste No Waste	Volume of Waste	Disposal Fa	acility Name & Addre	ess Transporter N	ame & Address	Method of Disp.
In signing this I hereb conform to the require		er contract betw	een EnviroTrac Ltd.	. and Dvirka and Ba	rtilucci.	during this event

MAINTENANCE AND INSPECTION REPORT FRANKLIN CLEANERS SITE, ROCKVILLE CENTRE, NY

	FRANK	LIN CLEANE	ERS SITE, ROCK	VILLE CENTR	E, NY		
Date: 11-17-05							
Name of Personnel O		ītle	Time Arrived	Time Departed	Total Hours		
Mike Rose	5	Sr. Technician	0800	1030	2.5 Onsite / 1.5	setup and travel	
Check off Items that w					en en Maintenance		
□ Item 1: Snow					pper Maintenance Removal and Repl	aaamaat	
	ure Blower Maintena sure Blower Fan Who		+ 4		utine Maintenance	acement	
		sei Keplacemen	L '	Rem J. Non-IO			
Description of Work:			I				
Trouble shoot recover	y well RW-1 Variabl	e frequency drive	e (VFD). Isolated pro	blem to be subm	ersible pump in well	. Pump should be	
pulled and checked.	•						
Name of Part / Supply	/ Motorial	Manufactur	or	Model Num	hor	Quantity Used	
Name of Fart / Supply		Manulaciui	61	Model Nulli	NGI		
Description of Waste	Volume of Waste	Disposal Fa	acility Name & Addre	ess Transporter	Name & Address	Method of Disp.	
5							
In signing this I hereby						during this event	
conform to the require	ments specified und	ler contract betw	veen EnviroTrac Ltd.	, and Dvirka and I	Bartilucci.		
andhing Fear	withe 14/23	<u>∕or⊂.</u> Signatur	re / Print / Date Aw	thony two	rentihe		
V				/			

······································	M	AINTENANC		PECT	ION REPORT		
					/ILLE CENTRE,	NY	
Date: December 19, 2							
Name of Personnel On		le	Time Arrive	d	Time Departed	Total Hours	
Steve Sussman		. Technician	08:30	-	10:30	2 onsite / 1.0ho	ur prep /travel

Check off Items that we							
□ Item 1: Snow I					Item 3: Air Strippe		
X Item 2: Pressure Blower Maintenance					Item 4: Carbon Re		icement
Item 2A: Pressure Blower Fan Wheel Replacement					Item 5: Non-routir	ne Maintenance	
Description of Work:							
Checked "V" belts on s	haft pulley, three bel	ts total, checke	d tension of "	V" belts	. Tightened belts that	at were loose due	to break-in from
newly replaced last vis	it. Greased fittings fo	r belt to blower	shaft. Grease	ed fitting	on Baldor motor. S	Secured bolts at th	e belt guard.
Removed butterfly value	e and flange at blow	er inlet, inspect	ed fan wheel	for rota	tion and cleanliness	. Checked all cen	ter mount bolts.
Restarted blower.							
	158-1	B.f. C. I.				-	Quantity Used
Name of Part / Supply	/ Material	Manufactur Mobil	<u>}[</u>		Model Number	Model Number Mobilith AW2	
Grease							Approx. 0.13 oz
						a a canana da	
Description of Waste	Volume of Waste	Disposal Fa	acility Name &	Addre	ss Transporter Na	ame & Address	Method of Disp.
No Waste							
In signing this I hereby							during this event
conform to the require					and Dvirka and Bar ames_Wilk		16/06
Konner halk	sm 125	Signatur	e / Print / Dat		AULOC VILLE	MEETIN SI	

			E AND INSPECTI							
	FRAN	KLIN CLEANE	RS SITE, ROCKV	ILLE CENTRE,	NY					
Date: February 14, 20										
Name of Personnel O	nsite	Title	Time Arrived	Time Departed	Total Hours					
John Alliegro		Contractor		Unit Price						
= 1964 - 19										
Check off Items that were completed: Item 1: Snow Removal Item 3: Air Stripper Maintenance Item 2: Pressure Blower Maintenance Item 4: Carbon Removal and Replacement Item 2A: Pressure Blower Fan Wheel Replacement Item 5: Non-routine Maintenance Description of Work: Snow removal performed by verbal approval from Frank Devita.										
Name of Part / Supply	/ Material	Manufactur	er	Model Number	-	Quantity Used				
Description of Waste Volume of Waste Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Transporter Name & Address Method of Disposal Facility Name & Address Method & Meth										
In signing this I hereb		der contract betw		and Dvirka and Bar	tilucci.	during this event 506				

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	N	IAINTENANC	E AND INSPE	TION	REPORT		
	FRAN	LIN CLEANE	ERS SITE, ROC	KVIL	LE CENTRE,	NY	
Date: February 15, 20)06						
Name of Personnel O	nsite 7	ītle	Time Arrived	Tir	ne Departed	Total Hours	
Steve Sussman	5	Sr. Technician	08:00	10	:00	2 onsite / 1.5ho	ur prep /travel
	Removal ure Blower Maintena ure Blower Fan Whe shaft pulley, three be it to blower shaft. G inspected fan wheel	el Replacemen elts total, checke reased fitting on for rotation and	t ed tension of "V" be Baldor motor. Sec cleanliness. Chec	☐ Iten ☐ Iten elts. Be	n 4: Carbon R n 5: Non-routi elts found to be i olts at the belt g	guard. Removed b	and proper tension. outterfly valve and
Name of Part / Supply	/ Material	Manufactur	~or		Model Numbe	r	Quantity Used
Grease	/ matorial	Mobil			Mobilith AW2	•	Approx. 0.21 oz
Description of Waste	Volume of Waste	Disposal F	acility Name & Ado	ress	Transporter N	ame & Address	Method of Disp.
No Waste							

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	EDAN					•·····		
Date: April 27, 2006	FRAN	INLIN CLEANE	ERS SITE, ROCK	ILLE CENTRE,				
Name of Personnel O	nsite	Title	Time Arrived	Time Departed	Total Hours			
Steve Sussman		Sr. Technician	09:00	11:00	2 onsite / 1.5hour prep /travel			
			······································					
-	Removal sure Blower Mainte sure Blower Fan W shaft pulley, three elt to blower shaft. (heel Replacemen belts total, checke Greased fitting on	t ed tension of "V" belts Baldor motor. Secur	ed bolts at the belt g	emoval and Repla ne Maintenance in good condition guard. Removed b	and proper tension putterfly valve and		
Name of Part / Supply Grease	•	Manufactur Mobil		Model Numbe Mobilith AW2		Quantity Used Approx. 0.08 oz		
	· · · · · · · · · · · · · · · · · · ·							
Description of Waste Volume of Waste Disposal No Waste		Disposal F	acility Name & Addre	ss Transporter N	ame & Address	Method of Disp.		
*****	· · · · · · · · · · · · · · · · · · ·		1997 - 1997 -					
In signing this I hereb	y certify that to the ements specified ur	best of my knowl	edge the maintenanc	e and inspection ac	tivities performed	during this event		

		MAINTENANC	E AND INS	PECTI	ON REPORT		49// 44// Barry - 11/2
	FRAN	KLIN CLEANE	RS SITE, F	ROCKV	ILLE CENTRE,	NY	
Date: June 30, 2006							
Name of Personnel On	site	Title	Time Arrive	d	Time Departed	Total Hours	
Steve Sussman		Sr. Technician	10:30		12:30	2 onsite / 1.5ho	ur prep /travel
Check off Items that we Item 1: Snow F X Item 2: Pressu Item 2A: Pressu Description of Work: Checked "V" belts on s Greased fittings for belt flange at blower inlet, in	Removal re Blower Mainten Ire Blower Fan Wh haft pulley, three b t to blower shaft. G	eel Replacement elts total, checke creased fitting on	d tension of " Baldor motor	□ □ V" belts. : Secure	d bolts at the belt g	emoval and Repla ne Maintenance n good condition a juard. Removed b	and proper tension. outterfly valve and
Name of Part / Supply	•	Manufactur			Model Number		Quantity Used
Grease		Mobil	bil		Mobilith AW2		Approx. 0.16 oz
Description of Waste No Waste	Volume of Waste	Disposal Fa	acility Name &	& Addres	s Transporter N	ame & Address	Method of Disp.
						*.	
In signing this I hereby conform to the requirer	nents specified un	der contract betw		rac Ltd.,			during this event

Date: July 31, 2006						
Name of Personnel Or	nsite	Title		Time Departed	Total Hours	
Mike Rose		Field Engineer	8:30 am	10:30 am	2	
Check off Items that w Item 1: Snow Item 2: Press Item 2A: Press	Removal ure Blower Mainte			tem 3: Air Strippe tem 4: Carbon Re tem 5: Non-routin	emoval and Repla	acement
Description of Work: Stopped by site to trou recovery well.	ibleshoot EW-2. V	/FD was shutting d	down on fault. Pump ne	eeds to be pulled fro	om well and atter	npt to redevelo
Stopped by site to trou	1	/FD was shutting d		eeds to be pulled from Model Number		npt to redevelo
Stopped by site to trou recovery well.	1	-		·		
Stopped by site to trou recovery well.	1	-		·		
Stopped by site to trou recovery well.	1	Manufactur		Model Number		
Stopped by site to trou recovery well. Name of Part / Supply	/ Material	Manufactur	rer	Model Number		Quantity Use

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MAINTENANCE AND INSPECTION REPORT								
FRANKLIN CLEANERS SITE, ROCKVILLE CENTRE, NY								
Date: August 30, 2006								
Name of Personnel Onsite	Title	Time Arrived	Time Departed	Total Hours				
Kevin Murphy	Project Mgr	8:00	9:00	1	·····			
Delta Well & Pump	Driller	9:00	4:00	7				
Check off Items that were complete Item 1: Snow Removal Item 2: Pressure Blower M Item 2A: Pressure Blower F Description of Work: EnviroTrac subcontracted Delta We surging and pumping and put the p	aintenance an Wheel Replacemen 	t X		emoval and Repland Repland Repland Repland Repland Replacements and Replacements and Repland Repland Repland Re	p the well by			
Name of Part / Supply / Material	Manufactu	rer	Model Numbe	r	Quantity Used			
Description of Waste Volume of V No Waste	Vaste Disposal F	acility Name & Addres	ss Transporter N	lame & Address	Method of Disp.			
In signing this I hereby certify that the conform to the requirements specify that the requirements specify that the conformation of the requirements specific terms of the context of the	ied under contract betw	edge the maintenance ween EnviroTrac Ltd., re / Print / Date AnH	and Dvirka and Ba	rtilucci.	during this event			

	ľ	MAINTENANC	E AND INSPECTI	ON REPORT	· · · · · · · · · · · · · · · · · · ·	
	FRAN	KLIN CLEANE	ERS SITE, ROCKV	ILLE CENTRE,	NY	
Date: September 7, 20	06					
Name of Personnel On	site	Title	Time Arrived	Time Departed	Total Hours	
James Van Horn		Field Eng. 7:30 11:30 6				
Steve Sussman		Sr. Technician 7:30 11:30 6				
Delta Well and Pump		Driller	8:00	4:00	8 + travel to an	d from
☐ Item 2: Pressu ☐ Item 2A: Pressu Description of Work: EnviroTrac subcontract pump and motor with n	ted Delta Well and	eel Replacemen	t XI	tem 4: Carbon F tem 5: Non-routi	ne Maintenance	
Name of Part / Supply	/ Material	Manufactur	rer	Model Numbe		Quantity Used
EW-1 submersible pur		Grundfos		25E3		1
EW-1 submersible mot		Franklin		2 hp 200 volt	3 phase	1
Description of Waste No Waste	Volume of Waste	Disposal F	acility Name & Addres	s Transporter N	ame & Address	Method of Disp.
In signing this I hereby conform to the requirer	nents specified un	der contract betv	edge the maintenance veen EnviroTrac Ltd., a re / Print / Date An	and Dvirka and Ba	ITIIUCCI.	during this event

	FRAN	KLIN CLEANE	RS SITE, ROCKV	ILLE CENTRE, N	Y	
Date: September 19, 1	2006					
Name of Personnel Or	nsite	Title			Total Hours	
Steve Sussman		Sr. Technician	9:00	11:00	2 onsite / 1.5ho	ur prep /travel
Check off Items that w Item 1: Snow X Item 2: Press Item 2A: Press Description of Work: Checked "V" belts on s Greased fittings for be flange at blower inlet,	Removal ure Blower Mainter ure Blower Fan Wh shaft pulley, three b	eel Replacement elts total, checke reased fitting on	d tension of "V" belts. Baldor motor. Secure	d bolts at the belt gua	noval and Repla Maintenance good condition a ard. Removed b	and proper tension
	•					JWGI.
Name of Part / Supply						
Name of Part / Supply Grease		Manufactur Mobil		Model Number Mobilith AW2		Quantity Used
		Manufactur Mobil		Model Number Mobilith AW2		Quantity Used Approx. 0.1202

Date: 12/6/06				
Name of Personnel Onsite		Time Arrive		
Luke Sorensen	President	1330	1630	3
Check off Items that were c	<u> </u>	I		
 Item 1: Snow Rem Item 2A: Pressure Item 2B: Pressure B Item 3: Air Stripper Item 4: Granular A Item 5: Submersible Item 6: Non-routine Description of Work: Pressure Blower Maintee in down-well pump response 	Blower Maintena llower Fan Whee Maintenance ctivated Carbon le Wet Well Pum e Maintenance enance.	el Replacement Removal and R p Maintenance	eplacement and Inspection	hort circuits to Ground
Name of Part / Supply / Ma	terial Manufa	cturer	Model Number	Quantity Used
Grease	ExxonN	minimum interior and a second s	Mobilith SHC 100	1
Description of Waste Gene	rated Volume	of Waste	Disposal Facility (Name & Address)	Waste Transporter (Name & Address)
In signing this report I herel				

Date: 12/19/06			······							
Name of Personnel Onsite	Title	Time Arrived	Time Depart	ed Total Hours						
Luke Sorensen (STI)	President	0910	~ 1400 -150	0 ~ 5 hrs						
Joseph Wood (GA Fleet)	Technician	0910	1230	3 hrs, 20 min						
Check off Items that were c	ompleted:									
 ☐ Item 2A: Pressure ☐ Item 2B: Pressure B ☐ Item 3: Air Stripper ☐ Item 4: Granular Ac ☑ Item 5: Submersibl ☑ Item 6: Non-routine Description of Work: 	 Item 1: Snow Removal Item 2A: Pressure Blower Maintenance Item 2B: Pressure Blower Fan Wheel Replacement Item 3: Air Stripper Maintenance Item 4: Granular Activated Carbon Removal and Replacement Item 5: Submersible Wet Well Pump Maintenance and Inspection Item 6: Non-routine Maintenance 									
 Item 5: GA Fleet Pur Did not change pump oil changes at no add Item 6: STI re-zeroed Item 6: STI adjusted 	o oil as required. ditional charge. d air stripper flow-	A second visit w meter (will not ir	vill be scheduled for							
Name of Part / Supply / Mat	terial Manufact	urer N	Iodel Number	Quantity Used						
an a		· · · · · · · · · · · · · · · · · · ·	. <u></u>	- <u> </u>						
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		·····	<u></u>							
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Description of Waste Gene	rated Volume o		Disposal Facility Name & Address)	Waste Transporter (Name & Address)						
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an and a second and a second and a second		·	· · · · · · · · · · · · · · · · · · ·							
In signing this report I hereby certify that to the best of my knowledge the maintenance and inspection activities performed during this event conform to the requirements specified under contract between STI and Dvirka and Bartilucci.										

Date: 2/13/07		T.	<u> </u>			
Name of Personnel Onsite	Title	Time Arriv	ved Ti	me Departe	ed Total Hours	
L. Sorensen	Technician	1400	and a second	530	1.5	
generalite status (h. 1997). 1						
		-				
	2 · · ·				······	
Check off Items that were co Item 1: Snow Remain Item 2A: Pressure Item 2B: Pressure B Item 3: Air Stripper Item 4: Granular Act Item 5: Submersibl Item 5: Submersibl Item 6: Non-routine Description of Work: Performed Item 2A in accor 1.) Inspected fan wheel 2.) Inspected V-belt for a	oval Blower Maintena lower Fan Whee Maintenance ctivated Carbon e Wet Well Pum Maintenance dance with secti for wear, corrosi	el Replaceme Removal and p Maintenanc on 3.3 of cont on and buildu	Replacement te and Inspection tract between up – None se	ction	and contractor:	
3.) Inspected fasteners4.) Lubricated motor bea	for tightness – A arings (see belov	ll okay v)		mbor	Quantity Llead	
Name of Part / Supply / Ma		Glurer		Model NumberQuantity UsedMobilith SHC 100Not measurable		
Bearing grease	Mobil				Not measurable	
					<u> </u>	
				······		
· · · · · · · · · · · · · · · · · · ·					·	
	<u></u>					
Description of Waste Gener	rated Volume	of Waste	Disposal I (Name & J		Waste Transporter (Name & Address)	
	*					
· · · · · · · · · · · · · · · · · · ·						
					· · · · · · · · · · · · · · · · · · ·	
In signing this report I here inspection activities perform between STI and Dvirka an	ned during this e	vent conform	to the requir	ements spe Sorensen	ecified under contract	

Date: 6/8/07	ang diga		· · · · · · · · · · · · · · · · · · ·	
Name of Personnel Onsite	Title	Time Arrived	Time Depart	ted Total Hours
L. Sorensen	President	<u> </u>	<u></u>	
	: 			
Check off Items that were co	ompleted:			
□ Item 5: Submersible	Blower Maintenan ower Fan Wheel	Replacement emoval and Re		
	en den de de la constanción de la const	n di dagini dagina d	ىرىمىيىتى بىرىمىيىسىيىتىنى ئىزىنى بىرى ئىرى يىرى ئىرى يىرى <u>ئىرى يىرى ئىرى بىرى ئىرى بىرى ئىرى بىرى ب</u>	
Description of Work:				
Diagnosed inoperable condu	uctivity probes in	EW-1. Probes	seem to be fouled v	vith scaling. Unable
to remove probes from well				.
Name of Part / Supply / Mate	erial Manufact	urer N	Aodel Number	Quantity Used
			······	
anna an	······		Handler - Andreas - A	
An gun an	·····			
A terrest of the second se S				
Description of Waste Generation	ated Volume o	· · · · · · · · · · · · · · · · · · ·	Disposal Facility Name & Address)	Waste Transporter (Name & Address)
an baaran araa ay ahaan ah				
หนู่หมดีที่รู้กับการแขนของเหมืองการมีการการการการการการการการการการการการการก			<u>y y za </u>	<u>an in in in the state of the s</u>
In signing this report I hereb inspection activities perform between STI and Dvirka and	ed during this eve	ent conform to t	he requirements sp - Luke Sorens	ecified under contract
	in the second	Signatul	re / Print / Date	

Date: 6/11/07			<u> </u>			· · · · · · · · · · · · · · · · · · ·
Name of Personnel Onsite	Title	Time Arr	ived	Time Depar	ted	Total Hours
L. Sorensen	President		والمراجع والمراجع والمراجع والمراجع والمراجع			
R. Wickers	Technician					
Check off Items that were c	ompleted:		<u></u>		<u> </u>	
Item 1: Snow Remo	ter s an little a					
□ Item 2A: Pressure	na de la construction de la constru	an a	1			
☐ Item 2B: Pressure B ☐ Item 3: Air Stripper		Replaceme	ent			
☐ Item 4: Granular Ac		Removal and	d Replace	ment		
	e Wet Well Pump					
Item 6: Non-routine	Maintenance					
					int literature datas	
Description of Work:						
1.) Cleared vegetation w	ithin compound					
2.) Jumped EW-1 condu		h those of E	-W-2			
and a survey for an an and a second se						
Name of Part / Supply / Mat	erial Manufact		Model	Number	Quant	ity Used
		<u></u>				
				anya ya sana ya sana ana		
						والمروقي
				·	1. <u>1. 19</u> 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	<u>,</u>
Description of Waste Gener	ated Volume of	of Waste	Dispo	sal Facility	Waste	Transporter
nen an europe a geroerinen a con e in e oeren saar onen een eren.				e & Address)		e & Address)
an dan dan dan dan dan dan dan dan dan d						
						na aliana di kana di ka Ana di kana di k
In signing this report I hereb						
inspection activities perform between STI and Dvirka and	t Bartilucci			culternents sp		
bothcon on and bying an		Siar		rint / Date	<u></u>	117101
	· •					

Date: 6/28/07					-		
Name of Personnel Onsite	Title	Time Arrive	ed Time Dep	arted Total Ho	urs		
L. Sorensen	President	1145	1645	5			
	·						
i							
Check off Items that were co	•	I i		,,,,,,,,_,_,_,_,_,			
☐ Item 1: Snow Remo ☐ Item 2A: Pressure I ☐ Item 2B: Pressure B ☐ Item 3: Air Stripper ☐ Item 4: Granular Ac ☐ Item 5: Submersible ☐ Item 6: Non-routine	Blower Maintena lower Fan Whee Maintenance stivated Carbon e Wet Well Pum	el Replacement	Replacement				
Description of Work:				<u></u>			
1.) Item 2A: Pressure Bl 2.) Item 6: Non-Routine			ctivity probes in we	I EW-1.			
,							
Name of Part / Supply / Mat	erial Manufa	cturer	Model Number	Quantity Used			
Conductivity Probe with Cat and Adaptor Kit			3W2	2			
Bearing Grease	ExxonM	lobil	Mobilith SHC100	Not Measurabl	e		
· · · · · · · · · · · · · · · · · · ·							
Description of Waste Gener	ated Volume	of Waste	Disposal Facility (Name & Address	Waste Transpo) (Name & Addr			
· · · · · · · · · · · · · · · · · · ·				<u></u>			
In signing this second the such		the bast of an	lanningan dan men	ntananaaad			
In signing this report I hereby certify that to the best of my knowledge the maintenance and inspection activities performed during this event conform to the requirements specified under contract between STI and Dvirka and Bartilucci.							

ACTIVE INDUSTRIAL UNIFORM SITE, LINDENHURST, NY

Date: 7/31/07				
Name of Personnel Onsite	Title	Time Arrived	Time Departe	d Total Hours
L. Sorensen	President	1300	1730	4.5
			· · · · · · · · · · · · · · · · · · ·	
Charle off Barro that ware				
Check off Items that were	•			
	ver Maintenance	Strip c □ Jtem	6: Removal and F per Packing Materia 7: Solids Filtration	al n Change-out
□ Item 2A: Pressure Blov	wer Fan Wheel	D Item	8: Non-Routine N	laintenance Services
Replacement Item 3: Transfer Pum	n Maintonanco			
□ Item 4: Air Stripper M	•			
☐ Item 5: Granular Activ		•		
Removal and Replacen	nent			
Description of Work:				
-				
Item 8: Non-Routine Mainte	enance Services	•		
 Repaired damaged f Filled sinkhole in par 				
	· · · · · · · · · · · · · · · · · · ·		1.1 XI	- Our effect land
Name of Part / Supply / Ma	with the second s		odel Number "x24" Galvanized	Quantity Used
Repair Section of Chain-Lir Fence		1 /2	xz4 Galvanizeu	
Recycled Concrete/Asphal	t N/A	N/	A	1 Cubic Yard
Blend				
			· · · · · · · · · · · · · · · · · · ·	
Description of Waste Gene	rated Volume	of Waste Di	sposal Facility	Waste Transporter
Description of waste Gene			lame & Address)	(Name & Address)
In signing this report I here	by certify that to	the best of my k	nowledge the main	tenance and inspection
activities performed during				
STI and Dvirka and Bartiluc		Staff Terrer to the state of th	ure / Print / Date	n 0/22/07
		Jiyilall	ac/1 mit/ Date	

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			a an	
Date: 8/10/07	······································	1	<u> </u>	
Name of Personnel Onsite	Title	Time Arrive	ed Time Depai	rted Total Hours
L. Sorensen	President	0930	1400	4.5
	*****	**************************************	·····	
	······			
Check off Items that were co	ompleted:	······································	· · · · · · · · · · · · · · · · · · ·	
☐ Item 1: Snow Remo ☐ Item 2A: Pressure B ☐ Item 2B: Pressure B ☐ Item 3: Air Stripper ☐ Item 4: Granular Ac ☐ Item 5: Submersible ☐ Item 6: Non-routine	Blower Mainten lower Fan Whee Maintenance tivated Carbon e Wet Well Purr	el Replacement Removal and f	Replacement	
	······			
Description of Work:				
Item 2A: Pressure Blower M	nintonanao			
Refit ZA. Flessure blower W	annenance			
Item 6: Non-Routine Mainter	nance: Diagnos	ed inonerable !	Sumn Pumn #2	
	,		marithe r accelor seem	
Name of Part / Supply / Mate	erial Manufa	cturer	Model Number	Quantity Used
Bearing Grease	ExxonN	lobil	Mobilith SHC100	Not Measurable
·				
		· · ·		
Description of Waste Generation	ated Volume	of Waste	Disposal Facility	Waste Transporter
		······	(Name & Address)	(Name & Address)
			L	
In signing this report I hereb				
inspection activities perform		vent contorm t		
between STI and Dvirka and		ue 2m	Luke Sorense	en 8/22/07
	······································	Signa	ture / Print / Date	

Date: 8/17/07	· · · · · · · · · · · · · · · · · · ·			
Name of Personnel Onsite	Title	Time Arriv		
L. Sorensen	President	1610	1730	1.33
Check off Items that were co Item 1: Snow Remo Item 2A: Pressure B Item 2B: Pressure B Item 3: Air Stripper Item 4: Granular Ac Item 5: Submersibl Item 6: Non-routine Description of Work: Item 6: Non-Routine Mainte	oval Blower Mainten Iower Fan Whe Maintenance ctivated Carbon e Wet Well Pun Maintenance	el Replaceme Removal and p Maintenand	Replacement ce and Inspection	n wet well
Name of Part / Supply / Mat	terial Manufa	cturer	Model Number	Quantity Used
Liquid Level Controller	ITT Fly		ENM-10	1
		×		
Description of Waste Gener	rated Volume	e of Waste	Disposal Facility (Name & Address	Waste Transporter s) (Name & Address)
	1		1	· · · · · · · · · · · · · · · · · · ·
In signing this report I herek inspection activities perform between STI and Dvirka an	ned during this o	event centorm		specified under contract

FRANKLIN CLEANERS SITE, ROCKVILLE CENTRE, NY

Date: 8/30/07			· · · · · · · · · · · · · · · · · · ·		
Name of Personnel Onsite	Title	Time Arri	- data - and -	sparted	Total Hours
L. Sorensen	President	0845	1930		10.75
Check off Items that were c	-				<u>I</u>
	lower Fan Whe Maintenance ctivated Carbon	el Replaceme Removal and	Replacement		
☐ Item 5: Submersibl ☑ Item 6: Non-routine	e Wet Well Pun Maintenance	np Maintenand	e and Inspection		
Description of Work:		······································			
Item 6: Non-Routine Mainte Removed existing pu Redeveloped well via Re-used existing pur pump which had a si Installed new pump/r Cleaned flow meter; Re-started well: New	imp/motor, leve a. surge block/o np cooling shro maller discharge motor, level prol	l probes; verpumping u ud, fabricated than existing bes;	ntil D&B staff appro rubber bushing to a unit;	oved water adapt shrou	turbidity; ud to new
Name of Part / Supply / Mat	terial Manufa	cturer	Model Number	Quar	ntity Used
Conductivity Probe with Cal and Adaptor Kit	ble GemsA	Narrick	3W2	2	
Well Pump/Motor	Grundfo	os/Franklin	5E8- 2HP/200V/3PH	1	
PTFE Motor Lead	Morris I	Industries	PTFE12GA/3W/	/G 1	
Misc. Pipe/Hose Fittings	Ward, I	-layward	Unknown	3	
Description of Waste Gener	rated Volume	e of Waste	Disposal Facility (Name & Addres	2	te Transporter ne & Address)
een met Mid-en et el en				L	
*****	· · · · · · · · · · · · · · · · · · ·				
In signing this report I herek inspection activities perform					

between STI and Dvirka and Bartilucci

Date: 9/18/07								
Name of Personnel Onsite	Title	Time Arrived	Time Depart	ed Total Hours				
L. Sorensen	President	1000	1330	3.5				
Check off Items that were completed:								
 Item 1: Snow Removal Item 2A: Pressure Blower Maintenance Item 2B: Pressure Blower Fan Wheel Replacement Item 3: Air Stripper Maintenance Item 4: Granular Activated Carbon Removal and Replacement Item 5: Submersible Wet Well Pump Maintenance and Inspection Item 6: Non-routine Maintenance 								
Description of Work:	<u></u>	· 	······································					
Item 6: Non-Routine Mainte								
panel stuck in a loop that all	1 1 2			• •				
off, allowed sump to fill to "p	•	, re-started pun	nps. Normal opera	ation resumed,				
observed three complete cy	cles.							
Name of Part / Supply / Mat	erial Manufactu	rer Mo	odel Number	Quantity Used				
Hame of Farth Supply Final				Guanny Coou				
······································								
	······································		······································	······				
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				
Description of Waste Gener	ated Volume of	Waste Di	sposal Facility	Waste Transporter				
-		(N	ame & Address)	(Name & Address)				
			•					
In signing this report I hereb								
inspection activities perform								
between STI and Dvirka and	d Bartilucci.	Jun	Luke Sorense	n 9/19/07				
	\mathcal{C}	Signature	/ Print / Date	-				

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Date: 10/9/07					·	
Name of Personnel Onsite	Title	Time	Arrived	Time Depa	rted Total H	ours
L. Sorensen	President					
	· · · · · · · · · · · · · · · · · · ·					
	n waara taala ahaa ahaa ahaa ahaa ahaa ahaa ah		· · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	
Check off Items that were co	ompleted:					ette a casta
 ☐ Item 1: Snow Remo ☑ Item 2A: Pressure I □ Item 2B: Pressure B □ Item 3: Air Stripper □ Item 4: Granular Ac □ Item 5: Submersible □ Item 6: Non-routine 	Blower Maintenai lower Fan Wheel Maintenance stivated Carbon F e Wet Well Pump	Replace Removal a	ind Replac			
					•	••••••••••••••••••••••••••••••••••••••
Description of Work:						
Item 2A: Pressure Blower	Maintenance					
Name of Part / Supply / Mate Bearing Grease	erial Manufact ExxonMo			l Number lith SHC-100	Quantity Used Not Measurabl	
				ین می این از می این این این این این این این این این ای		:
Departmention of Microbs Concern	ated Mehmore	CNAL-1-				
Description of Waste Genera	ated Volume o			osal Facility e & Address)	Waste Transpo (Name & Addro	
an a			<u></u>			
In signing this report I hereby inspection activities performed	y certify that to th ed during this eve	e best of	my knowle	edge the mainte	nance and	ntract
between STI and Dvirka and	Bartilucci.		2 cm	<u>LV Ke So</u> Print / Date	rensen 1/1	7/08
niiniiniiniinii araa araa ahaa ahaa ahaa ahaa ahaa ah	an a		Transaction (C. 1	an an the state of the set of the set	ten a nastronomina ten time kanadi nimelik si	

MAINTENANCE	AND INSPECTION REPORT
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	Title	Time Ar	rived	Time Depa	
L. Sorensen	President	1500	,	1730	3.5 (incl. trvl.)
			e nănăm (cănar militări militări)	······································	
				<u> </u>	······································
☐ Item 4: Granular Ac ☐ Item 5: Submersible	Blower Maintena lower Fan Whee Maintenance tivated Carbon I e Wet Well Pum Maintenance	I Replacem Removal an p Maintenar	d Replace lice and Ins	pection	ars
	erial Manufac ITT Flygi		Model ENM-1	Number 0	Quantity Used
Name of Part / Supply / Mat Liquid Level Controller					
		t	ENM-1		

	······		PECTION REPO		
FRANKL	IN CLEANE	ERS SITE, F	OCKVILLE CE	NTRE, NY	
Date: 10/22/07					
Name of Personnel Onsite	Title	Time A	nit and Times	N	
L. Sorensen	President	Time A		Departed	Total Hours
L. Odicilsen	riesident				8
and and the second s			in the second	<u></u>	
Check off Items that were co Item 1: Snow Remo Item 2A: Pressure I Item 2B: Pressure B Item 3: Air Stripper Item 4: Granular Ac Item 5: Submersible Item 6: Non-routine Description of Work: tem 6: Non-routine Mainte	oval Blower Mainte lower Fan Wr Maintenance stivated Carbo e Wet Well Pu Maintenance	ieel Replacen on Removal ai ump Maintena	nd Replacement nce and Inspection) 	
Name of Part / Supply / Mat	erial Manu	facturer	Model Number	r Qua	ntity Used
Description of Waste Genera	ated Volum	e of Waste	Disposal Facili (Name & Addre		te Transporter ne & Address)
n signing this report I hereby nspection activities performe between STI and Dvirka and	ed during this	event centor	n to the requirement	nts specified	under contrac

Date: 1/3/08				
Name of Personnel Onsite	Title	Time Arriv	ved Time Dep	
L. Sorensen	President	1330	1400	0.5
	1			
Check off Items that were c Item 1: Snow Rema Item 2A: Pressure I Item 2B: Pressure B Item 3: Air Stripper Item 4: Granular Ad Item 5: Submersible Item 6: Non-routine Description of Work: Item 2A: Pressure Blow	oval Blower Maintena lower Fan Whee Maintenance ctivated Carbon I e Wet Well Pump Maintenance	l Replacemer Removal and p Maintenanc	Replacement	
Name of Part / Supply / Mat			Model Number	Quantity Used
Bearing Grease	ExxonMo		Mobilith SHC-100	Not Measurable
Description of Waste Generation	ated Volume of	of Waste	Disposal Facility (Name & Address)	Waste Transporter (Name & Address)
In signing this report I hereb inspection activities perform between STI and Dvirka and	ed during this ev	ent conform t		pecified under contract

Date: 2/28/08					
Name of Personnel Onsite	Title	Time Arriv	ed Time E	Departed	Total Hours
L. Sorensen	President				
Check off Items that were co	ompleted:				
 ☐ Item 1: Snow Remo ☑ Item 2A: Pressure B □ Item 2B: Pressure BI □ Item 3: Air Stripper □ Item 4: Granular Ac □ Item 5: Submersible □ Item 6: Non-routine 	Blower Mainte ower Fan Wh Maintenance tivated Carbo	eel Replacemer on Removal and ump Maintenanc	Replacement		
Description of Work:					
Description of Work.					
Item 2A: Pressure Blower M	aintenance				
		~			
Name of Part / Supply / Mate	erial Manu	facturer	Model Number	Qu	antity Used
Bearing grease		nMobil	Mobilith SHC-1	100 No	t measurable
Description of Waste Generation	ated Volur	ne of Waste	Disposal Facili (Name & Addre		aste Transporter ame & Address)
In signing this report I hereb	y certify that	to the best of my	knowledge the r	naintenan	ce and
inspection activities perform	ed during this	event conform	to the requirement	nts specifie	ed under contract
between STI and Dvirka and		Man	- Luke So	orensen	4/21/08
	~		ature / Print / Date	е	and the second se

19 7 - 140.0			and the state of the	
Date: 5/2/08			Apple and a strange of \$400 fter \$200 fter	
Name of Personnel Onsite	Title	Time Arriv	ed Time Dep	
L. Sorensen	President			2.5 (incl trad
n an				
	and a state of the second		<u></u>	
	L <u></u>			
 ☐ Item 2B: Pressure B ☐ Item 3: Air Stripper ☐ Item 4: Granular A ☐ Item 5: Submersible 	oval Blower Maintena lower Fan Whee Maintenance ctivated Carbon e Wet Well Pum Maintenance	al Replacemer Removal and		
Name of Part / Supply / Ma	terial Manufa	cturer	Model Number	Quantity Used
Bearing Grease	Exxon		Mobilith SHC100	Not Measurable
andre and an and a second state of the second state of the second state of the second state of the second state Second state of the second state Second state of the second state		n na standar standar se standar s Standar se standar se s		
		alan an a		
<u>De - a sen alta actual - actual - actual - anno - anno - por a suan anno anno - por an actual actual ac</u>				
n an			- na server and an	
Description of Waste Gene	rated Volume	of Waste	Disposal Facility (Name & Address	Waste Transporter (Name & Address)
				and the second se
		ای ایدان سر می می می است. ممالی می اینداز بی می مو		n na her senere and se
In signing this report I here inspection activities perform between STI and Dvirka ar	ned during this o	event conform	y knowledge the ma to the requirements <u></u>	specified under contract

	·			
Name of Personnel Onsite	Title	Time Arrived		
	President	0945	1245	<u>5 (incl. trvl.)</u>
E. Sorensen	Fechnician	0945	1245	5 (incl. trvl.)
Check off Items that were cor	anlatad:			
□ Item 2B: Pressure Blo □ Item 3: Air Stripper M □ Item 4: Granular Act	ower Maintena wer Fan Whee laintenance vated Carbon Wet Well Purr		eplacement and Inspection	
Description of Work:	an a	<u> </u>		<u>. An air ann an an Air ann an Air</u>
 Inspected motor winding for dus Lubricated motor bearings and 	and dirt and cle fan bearings; 6. I	aned; 4. Inspected nspected all setscre	ews and bolts for tightnes	ignment and tension s
3. Inspected motor winding for due 5. Lubricated motor bearings and in Item 6: Non-Routine Maintenance fan. Removed fan, will order replace	and dirt and cle fan bearings; 6. li (2.5 hrs): Diagno cement with over	aned; 4. Inspected hspected all setscre sed inoperable blo hight delivery. Left	V-belt drive for proper al ews and bolts for tightnes wer, found short circuit in system off line. Estimate	ignment and tension s motor starter's cooling d return date 6/20.
3. Inspected motor winding for due 5. Lubricated motor bearings and in Item 6: Non-Routine Maintenance fan. Removed fan, will order replace	and dirt and cle fan bearings; 6. li (2.5 hrs): Diagno cement with over rial Manufa	aned; 4. Inspected hspected all setscre sed inoperable blo- night delivery. Left cturer	V-belt drive for proper al ews and bolts for tightnes wer, found short circuit in system off line. Estimate Model Number	ignment and tension s motor starter's cooling d return date 6/20. Quantity Used
3. Inspected motor winding for due 5. Lubricated motor bearings and f Item 6: Non-Routine Maintenance fan. Removed fan, will order replace Name of Part / Supply / Mate Bearing grease	and dirt and cle fan bearings; 6. li (2.5 hrs): Diagno cement with over rial Manufa Exxon	aned; 4. Inspected hspected all setscre sed inoperable blo- night delivery. Left cturer fobil	V-belt drive for proper al ews and bolts for tightnes wer, found short circuit in system off line. Estimate Model Number Mobilith SHC-100	ignment and tension s motor starter's cooling d return date 6/20. Quantity Used Not measurable
3. Inspected motor winding for due 5. Lubricated motor bearings and f Item 6: Non-Routine Maintenance fan. Removed fan, will order replace Name of Part / Supply / Mate	and dirt and cle fan bearings; 6. li (2.5 hrs): Diagno cement with over rial Manufa	aned; 4. Inspected hspected all setscre sed inoperable blo- night delivery. Left cturer fobil	V-belt drive for proper al ews and bolts for tightnes wer, found short circuit in system off line. Estimate Model Number	ignment and tension s motor starter's cooling d return date 6/20. Quantity Used
 Inspected motor winding for dust Lubricated motor bearings and it Item 6: Non-Routine Maintenance fan. Removed fan, will order replace Name of Part / Supply / Mate Bearing grease 	and dirt and cle fan bearings; 6. li (2.5 hrs): Diagno cement with over rial Manufa Exxon Amptra	aned; 4. Inspected hspected all setscre sed inoperable blo- night delivery. Left cturer fobil	V-belt drive for proper al ews and bolts for tightnes wer, found short circuit in system off line. Estimate Model Number Mobilith SHC-100	ignment and tension s motor starter's cooling d return date 6/20. Quantity Used Not measurable
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Date: 6/20/08				
Name of Personnel Onsite	Title	Time Arrive	d Time Depa	
L. Sorensen	President	1245	1445	4 (incl. trvl.)
E. Sorensen	Technician	1245	1445	4 (incl. trvl.)
☐ Jtem 5: Submersible	oval Blower Maintena ower Fan Whee Maintenance tivated Carbon Wet Well Pum Maintenance nance: 1.) Insta . System shut o on wet well pui	el Replacement Removal and F Ip Maintenance Iled new cooling down on high w	and Inspection g fan on blower moto et well level; 2.) Inve hrottled down to ~2	stigated high wet well 5% open. Opened
			Constants	
Name of Part / Supply / Mat	erial Manufa	cturer	Model Number	Quantity Used
Cooling Fan	Siemen	S	SIKOSTART	1
			ti sain an	
		a na shekara na shekar		
an a				
Description of Waste Gener	rated Volume	of Waste	Disposal Facility (Name & Address)	Waste Transporter (Name & Address)
			<u>, i cimera de la composición de la compo</u>	
·				
In signing this report I hereb inspection activities perform between STI and Dvirka and	ned during this e	event conform to	knowledge the main the requirements s Luke Sorense ture / Print / Date	specified under contract

Date: 8/5/08						
Name of Personnel Onsite	Title	Time Arri		Time Departe		
L. Sorensen	President	1345	1	715	5 (icl. travel, eq. pickup, dropoff)	
E. Sorensen	Technician	1345	1	715	5	
· · · · · · · · · · · · · · · · · · ·						
Check off Items that were completed: Check off Items that were completed: Item 1: Snow Removal Item 2A: Pressure Blower Maintenance Item 3: Air Stripper Maintenance Item 4: Granular Activated Carbon Removal and Replacement Item 5: Submersible Wet Well Pump Maintenance and Inspection Item 6: Non-routine Maintenance Description of Work: Item 6: Non-routine Maintenance – Vegetation Removal						
Name of Part / Supply / Mat	erial Manuf	acturer	Model Nu	ımber	Quantity Used	
		<u>- the second se</u>		: 	· · · · · · · · · · · · · · · · · · ·	
				*		
	÷					
Description of Waste Gener	rated Volum	e of Waste	Disposal (Name &	Facility Address)	Waste Transporter (Name & Address)	
	<u></u>	<u> </u>				
	<u> </u>				······································	
In signing this report I herek inspection activities perform between STI and Dvirka an	ned during this	event conform	i to the requi	irements spe Sovensen	enance and ecified under contract $S/15/03$	

Date: 9/24/08	16			······································
Name of Personnel Onsite	Title	Time Arrived	Time Depar	the second se
Sorensen	President	1020	1445	4.5 on site
E. Sorensen	Technician	1020	1445	4.5 on site
	1 			
Check off Items that were c	ompleted:			
☐ Item 1: Snow Rem ☐ Item 2A: Pressure	oval Blower Maintena	ance		
□ Item 2B: Pressure E	a region de la construction de la c	el Replacement		
☐ Item 3: Air Stripper		Descent and Dest		
		Removal and Repl		
	e vvet vveli Pum e Maintenance	p Maintenance and	i inspection	
	s maintenance			
Description of Work:		an <u>ite anno 1997 a stàiteann an Anno 1997 a</u> nn an Anno 1997 ann an		
Itom 5: Submoreible Ma	t Well Pump Ma	intenance and Insp		.4
Item J. Jupinersine vve				
1. Checked electrical c	ondition of insula	ation on power cabl	e and all phases	of
1. Checked electrical c 2. motor;			1. W (1997)	
 Checked electrical c motor; Checked for any loos 	se or faulty elect	rical connections w	ithin the pump co	ontrol panel;
 Checked electrical c motor; Checked for any loog Checked voltage support 	se or faulty elect	rical connections w phases of the elect	ithin the pump co rical control pane	ontrol panel; sl;
 Checked electrical c motor; Checked for any loos 	se or faulty elect	rical connections w phases of the elect	ithin the pump co rical control pane	ontrol panel; sl;
 Checked electrical c motor; Checked for any loos Checked voltage sup Checked voltage bal on; 	se or faulty elect oply between all ance between a	rical connections w phases of the elect Il phases on the loc	ithin the pump co rical control pane al side of the pur	ontrol panel; sl;
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 Checked electrical c motor; Checked for any loos Checked voltage sup Checked voltage bal on; Checked amperage Checked condition a 	se or faulty elect oply between all ance between a draw on all phas nd operation of l	rical connections w phases of the elect Il phases on the loc es of the pump mo motor thermal, prot	ithin the pump co rical control pane al side of the pur tor; ectors control sys	ontrol panel; sl; np control with pumj stem;
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 Checked electrical c motor; Checked for any loog Checked voltage sup Checked voltage bal on; Checked amperage Checked condition a Checked condition o Checked condition a Checked lower shaft 	se or faulty elect oply between all ance between a draw on all phas nd operation of i f upper shaft sea nd operation of	rical connections w phases of the elect II phases on the loc es of the pump mo motor thermal, prot als (inspect conditio leakage detector;	ithin the pump co rical control pane al side of the pur tor; ectors control sys	ontrol panel; sl; np control with pumj stem;
 Checked electrical c motor; Checked for any loos Checked voltage sup Checked voltage bal on; Checked amperage Checked condition a Checked condition o Checked condition a Checked lower shaf Changed oil; 	se or faulty elect oply between all ance between a draw on all phas nd operation of f f upper shaft sea nd operation of t seals (inspect	rical connections w phases of the elect II phases on the loc es of the pump mo motor thermal, prot als (inspect conditio leakage detector;	ithin the pump co rical control pane al side of the pur tor; ectors control sys	ontrol panel; sl; np control with pumj stem;
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 Checked electrical c motor; Checked for any loos Checked voltage sup Checked voltage bal on; Checked amperage Checked condition a Checked condition a Checked condition a Checked lower shaf Checked lower shaf Checked all impelle Checked for noisy u Physically checked 	se or faulty elect oply between all ance between a draw on all phas nd operation of i f upper shaft sea nd operation of t seals (inspect t seals (inspect r loose impeller; r wear rings; ipper and lower i for damage to p	rical connections w phases of the elect II phases on the loc es of the pump mo motor thermal, prot als (inspect condition leakage detector; condition of oil); bearings; ump and power cal	ithin the pump co rical control pane al side of the pur tor; ectors control sys on of motor housi	ontrol panel; al; np control with pumj stem;
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 Checked electrical c motor; Checked for any loos Checked voltage sup Checked voltage ballon; Checked voltage ballon; Checked amperage Checked condition a Checked condition a Checked condition a Checked lower shaft Checked for worn o Checked all impelle Checked for noisy u Physically checked Cleaned, reset and Checked for correct 	se or faulty elect oply between all ance between a draw on all phas nd operation of f f upper shaft sea nd operation of t seals (inspect r loose impeller; r wear rings; upper and lower for damage to p checked operati shaft rotation;	rical connections w phases of the elect II phases on the loc es of the pump mo motor thermal, prot als (inspect condition leakage detector; condition of oil); bearings; ump and power cal	ithin the pump co rical control pane al side of the pur tor; ectors control sys on of motor housi	ontrol panel; al; np control with pumj stem;
 Checked electrical c motor; Checked for any loos Checked voltage sup Checked voltage bal on; Checked amperage Checked condition a Checked condition a Checked condition a Checked condition a Checked lower shaft Checked for worn o Checked all impelle Checked for noisy u Physically checked Cleaned, reset and 	se or faulty elect oply between all ance between a draw on all phas nd operation of f f upper shaft sea nd operation of t seals (inspect r loose impeller; r wear rings; upper and lower for damage to p checked operati shaft rotation;	rical connections w phases of the elect II phases on the loc es of the pump mo motor thermal, prot als (inspect condition leakage detector; condition of oil); bearings; ump and power cal	ithin the pump co rical control pane al side of the pur tor; ectors control sys on of motor housi	ontrol panel; al; np control with pumj stem;
 Checked electrical c motor; Checked for any loos Checked voltage sup Checked voltage ballon; Checked voltage ballon; Checked amperage Checked condition a Checked condition a Checked condition a Checked condition a Checked lower shaft Checked for worn o Checked for worn o Checked for noisy u Physically checked Cleaned, reset and Checked for correct Tested pump opera 	se or faulty elect oply between all ance between a draw on all phas nd operation of i f upper shaft sea nd operation of t seals (inspect t seals (inspect r loose impeller; r wear rings; ipper and lower for damage to p checked operati shaft rotation; tion cycle.	rical connections w phases of the elect I phases on the loc es of the pump mo motor thermal, prot als (inspect condition leakage detector; condition of oil); bearings; ump and power cal on of the level sens	ithin the pump co rical control pane al side of the pur tor; ectors control sys on of motor housi ble;	ontrol panel; sl; np control with pump stem; ng);
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 Checked electrical c motor; Checked for any loos Checked voltage sup Checked voltage bal on; Checked voltage bal on; Checked amperage Checked condition a Checked condition a Checked condition a Checked lower shaf Checked for worn o Checked for worn o Checked for noisy u Checked for correct 	se or faulty elect oply between all ance between a draw on all phas nd operation of i f upper shaft sea nd operation of t seals (inspect t sea	rical connections w phases of the elect I phases on the loc es of the pump mo motor thermal, prot als (inspect condition leakage detector; condition of oil); bearings; ump and power cal on of the level sens	ithin the pump co rical control pane al side of the pur tor; ectors control sys on of motor housi ble; sors;	ontrol panel; np control with pump stem; ng);

Name of Personnel Onsite	T		and the second sec	
	Title	Time Arrived	Time Depar	
L. Sorensen	President	1600	1635	0.5 on site
E. Sorensen	Technician	1600	1635	0.5 on site
				<u>,</u>
Check off Items that were c	<u> </u>			annan an the state of the state
 ☐ Item 1: Snow Remains ☑ Item 2A: Pressure □ Item 2B: Pressure B □ Item 3: Air Stripper □ Item 4: Granular Ad □ Item 5: Submersible 	oval Blower Maintena lower Fan Whee Maintenance tivated Carbon e Wet Well Pum Maintenance	l Replacement Removal and Repl o Maintenance and		<u>1989 - Marina January</u>
 Inspected fan wheel Inspected V-belt drive Lubricated motor bea Inspected all setscrete 	e for proper aligr arings and fan be	ment and tension arings;		
 Inspected fan wheel Inspected V-belt drive Lubricated motor bea Inspected all setscree 	e for proper aligr arings and fan be ws and bolts for	ment and tension arings; tightness.	del Number	Quantity Llead
 Inspected fan wheel Inspected V-belt drive Lubricated motor bea Inspected all setscree 	e for proper aligr arings and fan be ws and bolts for terial Manufac	iment and tension parings; tightness. turer Mo	del Number	Quantity Used
 Inspected fan wheel Inspected V-belt drive Lubricated motor bea Inspected all setscree 	e for proper aligr arings and fan be ws and bolts for	iment and tension parings; tightness. turer Mo	del Number bilith SHC 100	Quantity Used Not Measurable
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 Inspected fan wheel Inspected V-belt drive Lubricated motor bea Inspected all setscree 	e for proper aligr arings and fan be ws and bolts for terial Manufac	iment and tension parings; tightness. turer Mo		and the second
 Inspected fan wheel Inspected V-belt drive Lubricated motor bea Inspected all setscreed Inspected all setscreed Name of Part / Supply / Mat Bearing Grease 	e for proper align arings and fan be ws and bolts for terial Manufac Mobil	iment and tension parings; tightness. turer Mo Mo of Waste Dis		
 Inspected fan wheel Inspected V-belt drive Lubricated motor bea Inspected all setscree 	e for proper align arings and fan be ws and bolts for terial Manufac Mobil	iment and tension parings; tightness. turer Mo Mo of Waste Dis	bilith SHC 100	Not Measurable Waste Transporte

Date: 12/17/08					manual and a second
ame of Personnel Onsite	Title	Time Arrive		ted	Total Hours
Sorensen	President	1005	1045		.66 on site
				· · · · · · · · · · · · · · · · · · ·	<u> </u>
	<u> </u>				
Check off Items that were c	ompleted:				•
☐ Item 4: Granular A ☐ Item 5: Submersibl	Blower Mainte lower Fan Wh Maintenance ctivated Carbo le Wet Well Pu Maintenance	eel Replacement in Removal and I imp Maintenance	Replacement		
i i i i i i i i i i i i i i i i i i i	naniti internationali contractore da entre anternationali de la contractore da entre da entre da entre da entre	orrosion – none 1			
 Inspected fan wheel f Inspected V-belt drive Lubricated motor bea Inspected all setscrev 	for buildup of r e for proper ali trings and fan	naterials – none gnment and tens bearings;	found; ion – okay;		
 Inspected V-belt drive Lubricated motor bea Inspected all setscrev 	for buildup of r e for proper ali arings and fan ws and bolts fo	naterials – none gnment and tens bearings; or tightness – oka	found; ion — okay; ay.	Qua	ntity Used
 Inspected V-belt drive Lubricated motor bea Inspected all setscrev Name of Part / Supply / Ma 	for buildup of r e for proper ali arings and fan ws and bolts fo aterial Manu	naterials – none gnment and tens bearings; or tightness – oka ifacturer	found; ion – okay; ay. Model Number		ntity Used Measurable
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 Inspected V-belt drive Lubricated motor bea Inspected all setscrev Name of Part / Supply / Ma 	for buildup of r e for proper ali arings and fan ws and bolts fo aterial Manu	naterials – none gnment and tens bearings; or tightness – oka ifacturer	found; ion – okay; ay. Model Number		
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 Inspected V-belt drive Lubricated motor bea Inspected all setscrev Name of Part / Supply / Ma 	for buildup of r e for proper ali arings and fan ws and bolts fo aterial Manu	naterials – none gnment and tens bearings; or tightness – oka ifacturer	found; ion – okay; ay. Model Number		
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3. Inspected V-belt drive 4. Lubricated motor bea 5. Inspected all setscrew Name of Part / Supply / Ma Bearing Grease	for buildup of r e for proper ali arings and fan ws and bolts fo aterial Manu Mobi	naterials – none gnment and tens bearings; or tightness – oka ifacturer	found; ion – okay; ay. Model Number	Not	Measurable ste Transporte
 Inspected V-belt drive Lubricated motor bea Inspected all setscrev 	for buildup of r e for proper ali arings and fan ws and bolts fo aterial Manu Mobi	naterials – none gnment and tens bearings; or tightness – oka lfacturer	found; ion – okay; ay. <u>Model Number</u> <u>SHC-100</u> Disposal Facility	Not	
3. Inspected V-belt drive 4. Lubricated motor bea 5. Inspected all setscrew Name of Part / Supply / Ma Bearing Grease	for buildup of r e for proper ali arings and fan ws and bolts fo aterial Manu Mobi	naterials – none gnment and tens bearings; or tightness – oka lfacturer	found; ion – okay; ay. <u>Model Number</u> <u>SHC-100</u> Disposal Facility	Not	Measurable ste Transporte
3. Inspected V-belt drive 4. Lubricated motor bea 5. Inspected all setscrew Name of Part / Supply / Ma Bearing Grease	for buildup of r e for proper ali arings and fan ws and bolts fo aterial Manu Mobil erated Volu	naterials – none gnment and tens bearings; or tightness – oka ifacturer I	found; ion – okay; ay. <u>Model Number</u> SHC-100 Disposal Facility (Name & Address	Not VVa:) (Na	Measurable ste Transporte me & Address
3. Inspected V-belt drive 4. Lubricated motor bea 5. Inspected all setscrew Name of Part / Supply / Ma Bearing Grease	for buildup of r e for proper ali arings and fan ws and bolts fo Mobil erated Volue erated Volue by certify that med during thi	naterials – none gnment and tens bearings; or tightness – oka ifacturer me of Waste me of Waste to the best of m is event conform	found; ion – okay; ay. <u>Model Number</u> <u>SHC-100</u> Disposal Facility (Name & Address knowledge the mail	Not Was (Na ntenanc specifie	Measurable ste Transporte me & Address e and d under contra

Date: 3/3/09				
Name of Personnel Onsite	Title	Time Arriv	red Time Dep	parted Total Hours
J. Sorensen	Technician	1300	1345	0.75 on site
Check off Items that were c				
☐ Item 2A: Pressure		nce		
☐ Item 2B: Pressure B			t	
☐ Item 3: Air Stripper			-	
	ctivated Carbon I	Removal and	Replacement	
□ Item 5: Submersible				
Item 6: Non-routine	Maintenance			
Description of Work:				
Item 1: Snow Removal				
Name of Part / Supply / Mat	erial Manufac	turer	Model Number	Quantity Used
				·
Description of Waste Generation	ated Volume of	of Waste	Disposal Facility	Waste Transporter
			(Name & Address)	(Name & Address)
In signing this report I hereby				
inspection activities performed				
between STI and Dvirka and	Bartilucci.		- Luke So	Vensen 3/4/09
		Signal	ture / Print / Date	

				1			
Date: 3/5/09		· · ·					
Name of Personnel Onsite	Title	Time Arrived	Time Depar	rted Total Hours			
L. Sorensen	President	1340	1410	0.5 on site			
Check off Items that were completed:							
 Inspected V-belt drive Lubricated motor bea Inspected all setscrev Name of Part / Supply / Mate 	rings and fan bear vs and bolts for tig	ings; htness.	del Number	Quantity Used			
Bearing Grease	Mobil		bilith SHC 100	Not Measurable			
Description of Waste Generated Volume of Waste Disposal Facility (Name & Address) (Name & Address)							
In signing this report I hereby inspection activities performe between STI and Dvirka and	ed during this even	t conform to the	requirements spe	ecified under contract			

FRANKLIN CLEANERS SITE, ROCKVILLE CENTRE, NY

Date: 4/15/09				
Name of Personnel Onsite	Title	Time Arrived	Time Departed	Total Hours
L. Sorensen	President	1500	1515	0.25 on site, 1.5 travel
J. Sorensen	Technician	1500	1515	0.25 on site 1.5 travel

Check off Items that were completed:

- □ Item 1: Snow Removal
- □ Item 2A: Pressure Blower Maintenance
- □ Item 2B: Pressure Blower Fan Wheel Replacement
- □ Item 3: Air Stripper Maintenance
- □ Item 4: Granular Activated Carbon Removal and Replacement
- Litem 5: Submersible Wet Well Pump Maintenance and Inspection
- ☑ Item 6: Non-routine Maintenance

Description of Work:

Item 6: Non-Routine Maintenance: Diagnose inoperable blower. Found tripped breaker. Reset breaker, problem corrected.

Name of Part / Supply / Material	Manufacturer	Model Number	Quantity Used
Description of Waste Generated	Volume of Waste	Disposal Facility	Waste Transporter
		(Name & Address)	(Name & Address)
		· · · · · · · · · · · · · · · · · · ·	
In signing this report I hereby certif			
inspection activities performed dur	ing this event conform to	o the requirements spe	ecified under contract
between STI and Dvirka and Bartil			
	Signat	ture / Print / Date	· / · ·

Date: 5/12/09				
Name of Personnel Onsite	Title	Time Arriv	ved Time Depa	arted Total Hours
L. Sorensen	President	1130	1210	.66 on site
			· · · · · · · · · · · · · · · · · · ·	
Check off Items that were c	ompleted:		engeget typetet i ter de sy og er sænnarennande	
Item 1: Snow Remo				
Titem 2A: Pressure	Blower Mainten	ance		
Item 2B: Pressure B		el Replacemei	nt	
Item 3: Air Stripper				
☐ Item 4: Granular Ac			•	
□ Item 5: Submersible		np Maintenanc	e and Inspection	
Item 6: Non-routine	Maintenance			
Description of Work:				
Have OA: Des same Discus				
Item 2A: Pressure Blowe		···· •! - ···		
1. Inspected fan wheel f				
2. Inspected fan wheel t	•		-i	
3. Inspected V-belt drive			ISION	
4. Lubricated motor bea				
5. Inspected all setscrev	ws and doils to	rugniness.		
			·	
Name of Part / Supply / Mat	erial Manufa	cturer	Model Number	Quantity Used
Bearing Grease	Mobil		Mobilith SHC 100	Not Measurable
Dealing Orease				
		,		·
		······································		·····
Description of Waste Gener	ated Volume	of Waste	Disposal Facility	Waste Transporter
			(Name & Address)	(Name & Address)
·····		half		(1000000)
In signing this report I hereb	v certify that to	the hest of my	knowledge the maint	enance and
inspection activities perform				
between STI and Dvirka and				Scrensen 6/1/09
		Sion	ature / Print / Date	

Date: 6/24/09							
Name of Personnel Onsite	Title	Time Arr	ived Time Depar	ted Total Hours			
J. Sorensen	Technician	1350	1630	2.66 on site			
O. Rodriguez	Technician	1350	1630	2.66 on site			
Check off Items that were co	ompleted:						
□ _ltem 5: Submersible	Blower Mainte lower Fan Wh Maintenance ctivated Carbo	eel Replaceme n Removal and mp Maintenan	d Replacement				
Description of Work:	·····						
Item 2A: Pressure Blowe 1. Inspected fan wheel f 2. Inspected fan wheel f 3. Inspected V-belt drive 4. Lubricated motor bea 5. Inspected all setscrew <i>j</i> + <i>em</i> 6. <u>Item-8-Non-Routine Mai</u> Vegetation clearing	for wear and c for buildup of r e for proper al urings and fan ws and bolts fo <u>ntenance</u>	orrosion; materials; ignment and te bearings; or tightness.		•			
Name of Part / Supply / Mat		acturer	Model Number	Quantity Used			
Bearing Grease	Mobil		Mobilith SHC 100	Not Measurable			
Fuel	BP ·		87 Octane Gasoline	3.5 Gallons			
Description of Waste Generated Volume of Waste Disposal Facility Waste Transporter (Name & Address) (Name & Address) (Name & Address)							
In signing this report I hereby certify that to the best of my knowledge the maintenance and inspection activities performed during this event conform to the requirements specified under contract between STI and Dvirka and Bartilucci.							

Date: 8/13/09								
Name of Personnel Onsite	Title	Time Arrived	Time Depart	ed Total Hours				
P. Hahn	Technician	1030	1130	1 on site				
J. Sorensen	Technician	1030	1130	1 on site				
Check off items that were co	ompleted:	•						
 Item 1: Snow Removal Item 2A: Pressure Blower Maintenance Item 2B: Pressure Blower Fan Wheel Replacement Item 3: Air Stripper Maintenance Item 4: Granular Activated Carbon Removal and Replacement Item 5: Submersible Wet Well Pump Maintenance and Inspection Item 6: Non-routine Maintenance 								
Description of Work:	· · · · · · · · · · · · · · · · · · ·							
Item 2A: Pressure Blowe	er Maintenance							
٩		ę						
Name of Part / Supply / Mat	erial Manufa	cturer Mo	odel Number	Quantity Used				
Bearing Grease	Mobil	Me	obilith SHC 100	Not Measurable				
-								
· · · · · · · · · · · · · · · · · · ·		·						
Description of Waste Gener	ated Volume		sposal Facility	Waste Transporter				
		(N	ame & Address)	(Name & Address)				
In signing this report I hereb								
between STI and Dvirka and	inspection activities performed during this event conform to the requirements specified under contract							
	d Bartiluaai 🦯	RE	Luke Sorensen	8/31/09				

				·	
Date: 10/5/09					
Name of Personnel Onsite	Title	Time Arrived	Time Depart		
P. Hahn	Technician	1530	1615	.75 on site	
Check off Items that were a	moleted:				
CHECK OF IGHTS THAT WE'E C	nuhieren.				
	Blower Maintena lower Fan Whee Maintenance ctivated Carbon I	l Replacement Removal and Repla			
Description of Work:					
Item 2A: Pressure Blowe 1. Inspected fan wheel 2. Inspected fan wheel 3. Inspected V-belt drive 4. Lubricated motor bea 5. Inspected all setscret	for wear and con for buildup of ma e for proper aligr arings and fan be	terials; ment and tension arings;			
Name of Part / Supply / Mat	erial Manufac	turer Mo	del Number	Quantity Used	
Bearing Grease	Mobil		bilith SHC 100	Not Measurable	
Description of Waste Generated Volume of Waste Disposal Facility (Name & Address) Waste Transpor (Name & Address)					
In elemine this second I beach	·	be beat of my last	uladaa tha mainta	manage and	
In signing this report I herek inspection activities perform between STI and Dvirka an	ed during this ev	vent conform to the			

FRANKLIN CLEANERS SITE, ROCKVILLE CENTRE, NY

Date: 10/20/09				
Name of Personnel Onsite	Title	Time Arrived	Time Departed	Total Hours
L. Sorensen	President	1000	1200	2 on site
P. Hahn	Technician	1000	1200	2 on site
(Fleet Pump & Service)	Technician	1000	1200	2 on site

Check off Items that were completed:

- □ Item 1: Snow Removal
- □ Item 2A: Pressure Blower Maintenance
- □ Item 2B: Pressure Blower Fan Wheel Replacement

□ Item 3: Air Stripper Maintenance

- Litem 4: Granular Activated Carbon Removal and Replacement
- Item 5: Submersible Wet Well Pump Maintenance and Inspection
- □ Item 6: Non-routine Maintenance

Description of Work:

Item 5: Submersible Wet Well Pump Maintenance and Inspection

- 1. Checked electrical condition of insulation on power cable and all phases of
- 2. motor;
- 3. Checked for any loose or faulty electrical connections within the pump control panel;
- 4. Checked voltage supply between all phases of the electrical control panel;
- 5. Checked voltage balance between all phases on the local side of the pump control with pump on;
- 6. Checked amperage draw on all phases of the pump motor;
- 7. Checked condition and operation of motor thermal, protectors control system;
- 8. Checked condition of upper shaft seals (inspect condition of motor housing);
- 9. Checked condition and operation of leakage detector;
- 10. Checked lower shaft seals (inspect condition of oil);
- 11. Changed oil;
- 12. Checked for worn or loose impeller;
- 13. Checked all impeller wear rings;
- 14. Checked for noisy upper and lower bearings;
- 15. Physically checked for damage to pump and power cable;
- 16. Cleaned, reset and checked operation of the level sensors;
- 17. Checked for correct shaft rotation;
- 18. Tested pump operation cycle.

Name of Part / Supply / Material Pump Oil	Manufacturer ITT Flygt	Model Number Unknown	Quantity Used 2 Quarts
	· ·		

	· · · · · · · · · · · · · · · · · · ·		
Description of Waste Generated	Volume of Waste	Disposal Facility (Name & Address)	Waste Transporter (Name & Address)
In signing this report I hereby cert inspection activities performed du between STI and Dvirka and Bart	ring this event conform	to the requirements sp	ecified under contrac
	Ciar	nature / Print / Date	

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APPENDIX C

SYSTEM MONITORING DATA PACKAGES

APPENDIX D

DATA VALIDATION CHECKLISTS

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review: 3/30/05
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: C1547– 3 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 12/13/04

All metal QC met requirements

♦0020\C1547 VALIDATION FORM\1

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	<u>Received</u>	Extracted	<u>Analyzed</u>	Exceeded?
EW-1	12/14/04		12/14/04	No
EW-2	12/14/04		12/16/04	No
AS-1*	12/14/04		12/16/04	No

*also run for pH, Fe & Mn

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

III. Tune Summary

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V6D4400	YES	INITIAL
2. V6D4660A	yes	Samples
3. V6D4700	YES	SAMPLES
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Site Name:	Franklin		Laboratory Name:	litkem
Reviewer:	R.Petrella		Date of Review:3	/30/05
Fraction:	VOA			
IV. Initia	al Calibration Su	ımmary (GC/MS)		
Date of Ca	libration: <u>11/19/</u>	04		
Α.	Standard Data	Files		
	Standard 1 ID:	V6D4402	Conc	: 10
	Standard 2 ID:	V6D4405	Conc	20
	Standard 3 ID:	V6D4401	Conc	50
	Standard 4 ID:	V6D4404	Conc	100
	Standard 5 ID:	V6D4403	Conc	200
B.	1. All SPCC m	net Criteria ?		

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review: <u>3/30/05</u>
Fraction: VOA	Date of Calibration: 11/19/04
IV. Initial Calibration Summary (continue	d)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if C. 1. Was the tune for the initial calibrat Yes	
2. Was the calibration conducted wit	hin 12 hours of the tune
Yes	
Comments:	
· · · · · · · · · · · · · · · · · · ·	
 D. Overall assessment of the initial calibrat (list the associated samples) 	ion:

Ok

Site Name: Franklin	Laboratory Name: Mitkem		
Reviewer: R.Petrella	Date of Review: 3/30/05		
Fraction: VOA			
VI. Continuing Calibration Summary (GC	C/MS)		
Date of Initial Calibration: 11/19/04			
Date of Continuing Calibration: 12/14/04, 12	2/16/04 File ID:VGD4661A, V6D4701		
A. 1. All SPCC met criteria ?			
Yes			
Calculate a SPCC RRF			
Comments:			
2. All CCC met criteria ?			
Yes			
Calculate a CCC % D			
Comments:			
B. Overall assessment of Continuin (list associated samples) OK,	g Calibration		

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin		Laboratory Na	ame: <u>Mitkem</u>	l
Reviewer:	R.Petrella		Date of Rev	view: <u>3/30/05</u>	5
Fraction:	VOA				
IX. Blanl	k Summary				
Date/Time of	of Analysis:			File ID:	-
<u>Compound</u>		Concentration	< <u>CROL</u>		<u>Comments</u>

•

.

List the samples associated with this method blank.

all method blanks clean

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name: Mitkem		
Reviewer: <u>R.Petrella</u>	Date of Review: <u>3/30/05</u>		
Fraction: <u>VOA</u>	A		
Siteb specific QC was not provided XI. Matrix Spike/Matrix Spike Duplication Summary			
Sample ID:	Matrix:		
Did the MS/MSD recovery data meet the contract recommended requirements ?			
٢	ſes		
If No, please note below.			
Blank spike was analyzed and all recoveries were within limits			
·			

Site Name: Franklin	Laboratory Name: Mitkem
Reviewer: R.Petrella	Date of Review: 3/30/05
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: C1601– 3 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 12/27/04

EW-2 required reanalysis at a secondary dilution (1:2) due to the concentration of tetrachloroethene exceeding the instrument calibration range in the initial undiluted analysis

All metal QC met requirements

.

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	<u>Analyzed</u>	Exceeded?
EW-1	12/27/04		1/3/05	No
EW-2	12/27/04		1/3/05	No
AS-1*	12/27/04		1/3/05	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

Tune Summary III.

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V1G5170	YES	INITIAL
2. V1G5190	yes	Samples
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Site Name	: Franklin	_ Laboratory Name: <u>Mi</u>	tkem
Reviewer:	R.Petrella	Date of Review:3/	30/05
Fraction:	VOA	_	
IV. Initia	al Calibration Summary (GC/M	S)	
Date of Ca	libration: <u>12/31/04</u>		
A.	Standard Data Files		
	Standard 1 ID: V1G5172	Conc:	10
	Standard 2 ID: V1G5175	Conc:	20
	Standard 3 ID: V1G5171	Conc:	50
	Standard 4 ID: V1G5174	Conc:	100
	Standard 5 ID: V1G5173	Conc:	200
P			

B. 1. All SPCC met Criteria ?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>	
Reviewer: <u>R.Petrella</u>	Date of Review: 3/30/05	
Fraction: VOA	Date of Calibration: 12/31/04	
IV. Initial Calibration Summary (continu	led)	
2. All CCC met Criteria ?		
Yes		
Comments:		
<u>-</u>		
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25%	if <40%	
C. 1. Was the tune for the initial calibration acceptable?		
Yes		
2. Was the calibration conducted within 12 hours of the tune		
Yes		
Comments:		
	· · · · · · · · · · · · · · · · · · ·	
 D. Overall assessment of the initial calibra (list the associated samples) ok 	ation:	

+0020\C1601 VALIDATION FORM\5

والشرف بتنبين يوالفعتين

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review:3/30/05	
Fraction: VOA		
VI. Continuing Calibration Summary (GC	C/MS)	
Date of Initial Calibration: 12/31/04		
Date of Continuing Calibration: 1/3/05	 File ID:V1G5191	
A. 1. All SPCC met criteria ?		
A. T. An of oo met offend :		
Yes		
Calculate a SPCC RRF		
Comments:		
2. All CCC met criteria ?		
Yes		
Calculate a CCC % D		
Comments:		
B. Overall assessment of Continuin (list associated samples) OK,	g Calibration	

i.

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Fran	ıklin	_ Laboratory Nan	ne:Mitkem
Reviewer: <u>R.Pe</u>	etrella	_ Date of Revie	ew: <u>3/30/05</u>
Fraction: VOA	N	_	
IX. Blank Su	mmary		
Date/Time of Ar	alysis:	F	ile ID:
Compound	Concentration	< <u>CROL</u>	<u>Comments</u>
VBLK1U	Freon 113 - 1 ug/l	<10	Compound not detected in samples, qualification of data not required

List the samples associated with this method blank. Trip blank clean, all other method blanks clean

♦0020\C1601 VALIDATION FORM\8

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

<u>Sample</u>

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name: Mitkem	
Reviewer: R.Petrella	Date of Review: 3/30/05	
Fraction: VOA Siteb specific QC was not provide		
XI. Matrix Spike/Matrix Spike Duplication	n Summary	
Sample ID:	Matrix:	
Did the MS/MSD recovery data meet the contract recommended requirements ?		
N	Yes	
If No, please note below.		
Blank spike was analyzed and all recoveries were within limits		

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

<u>Sample</u>

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin Laboratory Name: Mitkem				
eviewer: R.Petrella Date of Review: 3/30/05				
Fraction: VOA Siteb specific QC was not provid	- led			
XI. Matrix Spike/Matrix Spike Duplication Summary				
Sample ID:	Matrix:			
Did the MS/MSD recovery data meet the contract recommended requirements ?				
Yes				
If No, please note below.				
Blank spike was analyzed and all recoveries were within limits				

Site Name: Franklin Laboratory Name: Mitkem Date of Review: 3/30/05 Reviewer: R.Petrella **Data Deliverable Requirements** 1. . . A. Legible Yes **B.** Paginated Yes C. Arranged in order Yes D. Consistent dates Yes E. Case Narrative Yes F. Chain-of-Custody Record Yes G. Sample Data Complete Yes H. Standard Date Complete Yes I. Raw QC Data Complete Yes

Comments: D0030 – 3 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 1/10/05

EW-2 required reanalysis at a secondary dilution (1:2.5) due to the concentration of tetrachloroethene exceeding the instrument calibration range in the initial undiluted analysis

All metal QC met requirements

.

♦0020\D0030 VALIDATION FORM\1

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

II. Holding Times

	Date	Date	Date	Holding Time
Sample I.D.	<u>Received</u>	Extracted	Analyzed	Exceeded?
EW-1	1/11/05		1/12/05	No
EW- 2	1/11/05		1/12/05,	No
			1/13/05	
AS-1*	1/11/05		1/12/05	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer:	R.Petrella	

Date of Review: 3/30/05

Fraction: VOA

III. **Tune Summary**

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V6D5240	YES	INITIAL
2. V6D5280	yes	Samples
3. V6D5310	YES	DILUTION
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Site Name	: Franklin	Laboratory Name:Mi	tkem
Reviewer:	R.Petrella	Date of Review: <u>3/</u>	30/05
Fraction:	VOA		
IV. Initia	al Calibration Summary (GC/MS)	
Date of Ca	libration: <u>1/11/05</u>		
A.	Standard Data Files		
	Standard 1 ID: V6D524	3 Conc:	<u>10</u>
	Standard 2 ID: V6D524	7 Conc:	20
	Standard 3 ID: V6D5242	2 Conc:	50
	Standard 4 ID: V6D524	6 Conc:	100
	Standard 5 ID: V6D524	5 Conc:	200
B.	1. All SPCC met Criteri	a ?	

......

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review: <u>3/30/05</u>
Fraction: VOA	Date of Calibration: 1/11/05
IV. Initial Calibration Summary (continue	ed)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD	
Protocol allows up to 4 %RSD to be >25%	if <40%
C. 1. Was the tune for the initial calibra	ation acceptable ?
Yes	
2. Was the calibration conducted with	ithin 12 hours of the tune
Yes	
Comments:	
D. Overall assessment of the initial calibra (list the associated samples)	ition:

ok

Site Name: Franklin	Laboratory Name: Mitkem			
Reviewer: R.Petrella	Date of Review: <u>3/30/05</u>			
Fraction: VOA				
VI. Continuing Calibration Summary (G	C/MS)			
Date of Initial Calibration: 1/11/05				
Date of Continuing Calibration: 1/12/05, 1/1	I3/05 File ID:V6D5281, V6D5311			
A. 1. All SPCC met criteria ?				
Yes				
Calculate a SPCC RRF				
Comments:				
2. All CCC met criteria ?				
Yes				
Calculate a CCC % D				
Comments:				
 B. Overall assessment of Continuir (list associated samples) OK, 				

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer:
 R.Petrella

 Date of Review: 3/30/05

 Fraction:
 VOA

 VIII.
 Internal Standard Area Summary (GC/MS)

 Were all internal standard peak areas within the contract limits ?

 Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin) I	_aboratory Nan	ne:Mitkem
Reviewer: R.Petre	lla	Date of Revie	ew: <u>3/30/05</u>
Fraction: VOA			
IX. Blank Summ	ary		
Date/Time of Analys	sis:	F	ile ID:
Compound	Concentration	< <u>CROL</u>	<u>Comments</u>
VHBLK2D	Chlorobenzene 2 ug/l <1	0	Compound not detected in samples, qualification of data not required

List the samples associated with this method blank. Trip blank clean, all other method blanks clean

♦0020\D0030 VALIDATION FORM\8

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review: 3/30/05
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: D0079– 3 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 1/25/05

EW-2 required reanalysis at a secondary dilution (1:2) due to the concentration of tetrachloroethene exceeding the instrument calibration range in the initial undiluted analysis

All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

II. Holding Times

Sample I.D.	Date Received	Date Extracted	Date Analyzed	Holding Time Exceeded?
EW-1	1/26/05		1/26/05	No
EW-2	1/26/05		1/26/05, 1/31/05	No
AS-1*	1/26/05		1/26/05	No

*also run for pH, Fe & Mn

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer:
 R.Petrella

 Fraction:
 VOA

III. Tune Summary

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V1G5170	YES	INITIAL
2. V1G5570	yes	Samples
3. V1G5666	YES	DILUTION
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Site Name:	Franklin		Laboratory Name	:Mitkem
Reviewer:	R.Petrella		Date of Review	r: <u>3/30/05</u>
Fraction:	VOA			
IV. Initia	al Calibration Su	ımmary (GC/MS)		
Date of Ca	libration: <u>12/31/</u>	04		
Α.	Standard Data	Files		
	Standard 1 ID:	V1G5172	Co	nc: <u>10</u>
	Standard 2 ID:	V1G5175	Co	nc: 20
	Standard 3 ID:	V1G5171	Co	nc: 50
	Standard 4 ID:	V1G5174	Co	nc: 100
	Standard 5 ID:	V1G5173	Co	nc: 200
В	1. All SPCC m	net Criteria ?		

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>	
Reviewer: R.Petrella	Date of Review: 3/30/05	
Fraction: VOA	Date of Calibration: 12/31/04	
IV. Initial Calibration Summary (continue	d)	
2. All CCC met Criteria ?		
Yes		
Comments:		
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40%		
C. 1. Was the tune for the initial calibration acceptable?		
Yes		
2. Was the calibration conducted within 12 hours of the tune		
Yes		
Comments:		
D. Overall assessment of the initial calibrat	ion:	

(list the associated samples)

.

ok

Site Name: Franklin	Laboratory Name: Mitkem		
Reviewer: R.Petrella	Date of Review: 3/30/05		
Fraction: VOA			
VI. Continuing Calibration Summary (G	C/MS)		
Date of Initial Calibration: 12/31/04			
Date of Continuing Calibration: 1/26/05, 1/3	31/05 File ID:V1G5571, V1G5667		
A. 1. All SPCC met criteria ?			
Yes			
Calculate a SPCC RRF			
Comments:			
2. All CCC met criteria ?			
Yes			
Calculate a CCC % D			
Comments:			
B. Overall assessment of Continuir (list associated samples) OK,	-		

.

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin		Laboratory Na	ame: <u>Mitkem</u>	
Reviewer:	R.Petrella		Date of Rev	view: <u>3/30/05</u>	j
Fraction:	VOA				
IX. Blan	k Summary				
Date/Time	of Analysis:			File ID:	
Compound		Concentration	< <u>CROL</u>		<u>Comments</u>

List the samples associated with this method blank.

all method blanks clean

+0020\D0079 VALIDATION FORM\8

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name	: Franklin	Laboratory Name: Mitkem
Reviewer:	R.Petrella	Date of Review: 3/30/05
Fraction:	VOA	
Site	b specific QC was not provide	d
XI. Mat	rix Spike/Matrix Spike Duplicatio	n Summary
Sample ID		Matrix:
Did the MS/MSD recovery data meet the contract recommended requirements ?		
	N	/es
If No, pleas	se note below.	
Blank spike was analyzed and all recoveries were within limits		
· · · ·		

DATA VALIDATION - METALS

♦0020\D0079 VALIDATION FORM\11

Site Name: Franklin	Laboratory Name: Mitkem
Reviewer: R.Petrella	Date of Review: 3/30/05
I. Data Deliverable Requirements	·
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: D0112– 3 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 2/8/05

EW-2 required was initially analyzed at a dilution (1:2) due to the concentration of tetrachloroethene

All metal QC met requirements

Sample AS-1 was reanalyzed due to surrogate recoveries outside of limits, reanalysis had recoveries within limits however it was analyzed outside of the 7 day holding time

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

II. Holding Times

a 1.15	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	<u>Received</u>	Extracted	Analyzed	Exceeded?
EW-1	2/9/05		2/14/05	No
EW-2	2/9/05		2/14/05	No
AS-1*	2/9/05		2/10, 2/17	No

*also run for pH, Fe & Mn

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer:
 R.Petrella

 Fraction:
 VOA

III. Tune Summary

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V1G5810	YES	INITIAL
2. V1G5830	yes	Samples
3. V1G5920	YES	Rerun
4. V6D5570	YES	INITIAL
5. V6D5580	YES	SAMPLE
6.		
7.		
8.		
9.		
10.		

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

IV. Initial Calibration Summary (GC/MS)

Date of Calibration: 2/11/05, 2/9/05

A. Standard Data Files

Standard 1 ID:	V1G5812, V6D5572	_ Conc:	10
Standard 2 ID:	V1G5815, V6D5575	_ Conc:	20
Standard 3 ID:	V1G5811, V6D5571	_ Conc:	50
Standard 4 ID:	V1G5814, V6D5574	_ Conc:	100
Standard 5 ID:	V1G5813, V6D5573	Conc:	200

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments: _____

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>	
Reviewer: R.Petrella	Date of Review: 3/30/05	
Fraction: VOA	Date of Calibration: 2/11/05, 2/9/05	
IV. Initial Calibration Summary (continue	ed)	
2. All CCC met Criteria ?		
Yes		
Comments:		
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40%		
C. 1. Was the tune for the initial calibration acceptable ? Yes		
2. Was the calibration conducted with	thin 12 hours of the tune	
Yes		
Comments:		
 D. Overall assessment of the initial calibra (list the associated samples) ok 	tion:	
· · · · · · · · · · · · · · · · · · ·		

Site Name: <u>F</u>	Franklin	Laboratory Name:Mith	kem
Reviewer: <u>F</u>	R.Petrella	Date of Review: 3/30)/05
Fraction: <u>V</u>	/OA		
VI. Contir	nuing Calibration Summary (GC	C/MS)	
	l Calibration: <u>2/11/05, 2/9/05</u> inuing Calibration: 2/14, 2/17, 2	//10	File ID:V1G5832,
			V1G5921, V6D5581
Α.	1. All SPCC met criteria ?	.,	<u>, , , , , , , , , , , , , , , , , , , </u>
	Yes		
Calcul	Calculate a SPCC RRF		
Comments:			
2. AI	I CCC met criteria ?		
	Yes		
Calculate a CCC % D			
Comments:			
B. Overall assessment of Continuing Calibration (list associated samples) OK,			

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Fram	nklin	Laboratory Nam	ne:Mitkem
Reviewer: <u>R.P</u>	etrella	Date of Review: <u>3/30/05</u>	
Fraction: VOA	A		
IX. Blank Su	mmary		
Date/Time of Ar	nalysis:	F	ile ID:
Compound	Concentration	< <u>CROL</u>	Comments
VBLK1H	Acetone 2 ug/l		Compound not detected in associated sample, qualification of the data not required

List the samples associated with this method blank.

All OTHER method blanks clean

9

+0020\D0112 VALIDATION FORM\9

Laboratory Name: Mitkem Site Name: Franklin

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

Surrogate Recovery Summary Х.

Were all surrogate recoveries within the contract limits ?

No*

Amount Above

Contract Requirement

Surrogate Compound **Outside Recovery Limits** Sample

DCE 123% AS-1

Sample was reanalyzed out of hold with surrogate

Comments

recoveries within limits

♦0020\D0112 VALIDATION FORM\10

Site Name:	Franklin	Laboratory Name: Mitkem
Reviewer:	R.Petrella	Date of Review: 3/30/05
Fraction:	VOA b specific QC was not provide	d
	rix Spike/Matrix Spike Duplication	
Sample ID:	: 	Matrix:
Did the MS	/MSD recovery data meet the co	ontract recommended requirements ?
	N	/es
If No, pleas	se note below.	
Blank spike	e was analyzed and all recoverie	s were within limits

Site Name: Franklin	Laboratory Name: Mitkem		
Reviewer: R.Petrella	Date of Review: 3/30/05		
I. Data Deliverable Requirements			
A. Legible	Yes		
B. Paginated	Yes		
C. Arranged in order	Yes		
D. Consistent dates	Yes		
E. Case Narrative	Yes		
F. Chain-of-Custody Record	Yes		
G. Sample Data Complete	Yes		
H. Standard Date Complete	Yes		
I. Raw QC Data Complete	Yes		

Comments: D0203 – 3 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 2/23/05

EW-2 required reanalysis at a secondary dilution due to the concentration of tetrachloroethene exceeding the instrument calibration range in the initial undiluted analysis

All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

II. Holding Times

	Date	Date	Date	Holding Time
Sample I.D.	Received	<u>Extracted</u>	<u>Analyzed</u>	Exceeded?
EW-1	2/24/05		3/2/05	No
EW-2	2/24/05		3/2/05	No
AS-1*	2/24/05		3/2/05	No

*also run for pH, Fe & Mn

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer:
 R.Petrella

 Date of Review: 3/30/05

 Fraction:
 VOA

III. Tune Summary

a subscription

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V2G7100	YES	INITIAL
2. V2G7110	yes	Samples
3. V2G7250	YES	QC samples
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Site Name	: Franklin		Laboratory Nan	ne: <u>Mit</u>	kem
Reviewer:	R.Petrella		Date of Revie	ew: <u>3/3</u>	0/05
Fraction:	VOA				
IV. Initi	al Calibration Su	immary (GC/MS)			
Date of Ca	libration: <u>3/1/05</u>				
, A.	Standard Data	Files			
	Standard 1 ID:	V2G7102	C	onc:	10
	Standard 2 ID:	V2G7105	C	onc:	20
	Standard 3 ID:	V2G7101	C	onc:	50
	Standard 4 ID:	V2G7104	C	onc:	100
	Standard 5 ID:	V2G7103	C	onc:	200
B.	1. All SPCC m	net Criteria ?			

Yes

2. Calculate a SPCC average RRF

Comments: _____

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review: 3/30/05
Fraction: VOA	Date of Calibration: 3/1/05
IV. Initial Calibration Summary (continued	d)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if	
C. 1. Was the tune for the initial calibrat Yes	
2. Was the calibration conducted with	hin 12 hours of the tune
Yes	
Comments:	
 D. Overall assessment of the initial calibrat (list the associated samples) ok 	ion:

٠

Laboratory Name: Mitkem			
Date of Review: 3/30/05			
C/MS)			
/05 File ID:V2G7111, V2G7251			
5			
Calculate a SPCC RRF			
5			
Calculate a CCC % D			
 B. Overall assessment of Continuing Calibration (list associated samples) OK, 			

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin	Laboratory Nam	e:Mitkem
Reviewer:	R.Petrella	Date of Revie	w: <u>3/30/05</u>
Fraction:	VOA		
IX. Blank	Summary		
Date/Time o	f Analysis:	Fi	ile ID:
<u>Compound</u>	Concentration	< <u>CROL</u>	Comments
VHBLK2D	Chlorobenzene 2 ug/l	<10	Compound not detected in samples, qualification of data not required

List the samples associated with this method blank.

Trip blank clean, all other method blanks clean

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer:
 R.Petrella

 Date of Review: 3/30/05

 Fraction:
 VOA

 X.
 Surrogate Recovery Summary

 Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin	Laboratory Name:Mitkem
Reviewer:	R.Petrella	Date of Review: 3/30/05
	VOA b specific QC was not provide	
XI. Mati	rix Spike/Matrix Spike Duplication	n Summary
Sample ID:		Matrix:
Did the MS	/MSD recovery data meet the co	ontract recommended requirements ?
	٢	/es
If No, pleas	se note below.	
Blank spike	was analyzed and all recoverie	s were within limits

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review:3/30/05
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: D0222 – 7 water samples and one trip blank were collected and analyzed for VOA

Samples were collected on 2/25/05

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer: R.Petrella
 Date of Review: 3/30/05

II. Holding Times

<u>Sample I.D.</u> TB-1	Date <u>Received</u> 2/26/05	Date <u>Extracted</u>	Date <u>Analyzed</u> 3/2/05	Holding Time <u>Exceeded?</u> No
ASMW-5	2/26/05		3/3/05	No
ASMW-4	2/26/05		3/2/05	No
ASMW-6	2/26/05		3/2/05	No
ASMW-2	2/26/05		3/2/05	No
ASMW-3	2/26/05		3/3/05	No
ASMW-1*	2/26/05		3/2/05	No
ASMW-7	2/26/05		3/2/05	No
*run as				

MS/MSD

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer:	R.Petrella

Fraction: VOA

Date of Review: 3/30/05

III. Tune Summary

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V2G7100	YES	INITIAL
2. V2G7110	yes	Samples
3. V2G7140	YES	SAMPLES
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: <u>R.Petrella</u>	Date of Review: <u>3/30/05</u>
Fraction: VOA	
IV. Initial Calibration Summary (GC/MS	
Date of Calibration: <u>3/1/05</u>	
A. Standard Data Files	
Standard 1 ID: V2G7102	Conc: <u>10</u>
Standard 2 ID: V2G7105	Conc: <u>20</u>
Standard 3 ID: V2G7101	Conc: <u>50</u>
Standard 4 ID: V2G7104	Conc: <u>100</u>
Standard 5 ID: V2G7103	Conc: 200
B. 1. All SPCC met Criteria ?	

Yes

2. Calculate a SPCC average RRF

Comments:

.

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review: 3/30/05	
Fraction: VOA	Date of Calibration: 3/1/05	
IV. Initial Calibration Summary (continu	ed)	
2. All CCC met Criteria ?		
Yes		
Comments:	· · · · · · · · · · · · · · · · · · ·	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25%		
C. 1. Was the tune for the initial calibration acceptable ? Yes		
2. Was the calibration conducted within 12 hours of the tune		
Yes		
Comments:		
D. Overall assessment of the initial calibra (list the associated samples)ok	ation:	

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review: <u>3/30/05</u>
Fraction: VOA	
VI. Continuing Calibration Summary (G	C/MS)
Date of Initial Calibration: 3/1/05	
Date of Continuing Calibration: 3/2/05, 3/3/	05 File ID:V2G7111, V2G7141
A. 1. All SPCC met criteria ?	
Yes	
Calculate a SPCC RRF	
Comments:	
2. All CCC met criteria ?	
Yes	
Calculate a CCC % D	
Comments:	
 B. Overall assessment of Continuin (list associated samples) OK, 	g Calibration
<u> </u>	

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 3/30/05

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin	Laboratory Nam	ne:Mitkem
Reviewer:	R.Petrella	Date of Revie	w: <u>3/30/05</u>
Fraction:	VOA		
IX. Blan	k Summary		
Date/Time	of Analysis:	F	ile ID:
Compound	Concentration	< <u>CROL</u>	<u>Comments</u>
VHBLK2D	Chlorobenzene 2 ug/l	<10	Compound not detected in samples, qualification of data not required

List the samples associated with this method blank. Trip blank clean, all other method blanks clean

+0020\D0222 VALIDATION FORM\8

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: R.Petrella D

Date of Review: 3/30/05

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name: Mitkem	
Reviewer: R.Petrella	Date of Review: 3/30/05	
Fraction: VOA		
XI. Matrix Spike/Matrix Spike Duplicatio	on Summary	
Sample ID: ASMW-1	Matrix:water	
Did the MS/MSD recovery data meet the contract recommended requirements ?		
·	Yes	
If No, please note below.		
Blank spike was analyzed and all recoveries were within limits		
6 /100/100/00 10	17 21.17.141 1110	

Cleaners

SDG: Number of Samples: Analysis:

Data Validation Check List 3 DILA pH

Contractual Compliance

VOA **SVOA** Pest/PCB **Metals** Tunes: NA NA Surrogate Recoveries NA Blanks Initial Calibrations **Continuing Calibrations** Spikes TIC **Duplicates** Laboratory Control Samples NA NA Comments/Notes: 1:2.5 debution 0 LA due to PCE achlow Ð ISI k ¥

Franklin Cleaners 2307-03

Data Validation Check List ふろ SDG: Number of Samples: VOA Metals (Fe, Mr EW'S-VOA Analysis: ٨S **Contractual Compliance SVOA** Pest/PCB **Metals** Tunes: NA NA Surrogate Recoveries NA Blanks NN Initial Calibrations **Continuing Calibrations** l Spikes **Duplicates** Laboratory Control Samples NA NA TS Comments/Notes: VOANNO EW-1 NON a]` $\boldsymbol{\Lambda}$ excueding Cou 11 MAX 4

Franklin 2307-03

Metals

NA

NA

Data Validation Check List

SVOA

Pest/PCB

NA

MA

SDG: Number of Samples: Analysis:

>0392 Mn VOA

/OA

NA

run a

Contractual Compliance

Tunes:

Surrogate Recoveries

Blanks

Initial Calibrations

Continuing Calibrations

Spikes

Duplicates

Laboratory Control Samples

Comments/Notes:

SAMO Jin Ou NC N

NA

10

i:2

0

05

n

*

Franklen 2307-03

Metals

NA

NA

ŇĽ

Pest/PCB

NA

Data Validation Check List

SVOA

SDG: Number of Samples: Analysis:

ЦЦG Fe, MA, PH VOA

Contractual Compliance

Tunes:

Surrogate Recoveries

Blanks

Initial Calibrations

Continuing Calibrations

Spikes

Duplicates

Laboratory Control Samples

Comments/Notes:

<u>ٰ</u>۵٢ VOVA at 1:2 delution forthe ۷ reanalyzed 121 Ní.

NA

not VB İМ data

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dons Sighlens ata

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В

NA

ON

Site Name: Franklin	Laboratory Name: Mitkem
Reviewer: R.Petrella	Date of Review: 5/2/05
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: D0455 – 4 water samples and one trip blank were collected and analyzed for VOA. These samples were split with EP&S

Samples were collected on 4/20/05

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 5/2/05

II. Holding Times

е

Site Name: Franklin La

Laboratory Name:Mitkem

Reviewer:	R.Petrella
	terrere and a second

Date of Review: 5/2/05

Fraction: VOA

III. Tune Summary

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V2G8030	YES	INITIAL /samples
2.		
3		
4.		
5.		
6.		
7.		
8.		
9		
10.		

Site Name	Site Name: Franklin Laboratory Name: Mitkem			itkem
Reviewer:	er: R.Petrella Date of Review: 5/2/05			2/05
Fraction:	VOA			
IV. Initia	al Calibration Summary (GC/MS)			
Date of Ca	libration: <u>4/21/05</u>			
A.	Standard Data Files			
	Standard 1 ID: V2G8032	Co	onc:	10
	Standard 2 ID: V2G8035	Co	onc:	20
	Standard 3 ID: V2G8031	Co	onc:	50
	Standard 4 ID: V2G8034	Co	onc:	100
	Standard 5 ID: V2G8033	Co	nc:	200

B. 1. All SPCC met Criteria ?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin

Laboratory Name:<u>Mitkem</u>

Reviewer: R.Petrella

Fraction: VOA

Date of Calibration: 4/21/05

Date of Review: 5/2/05

IV. Initial Calibration Summary (continued)

2. All CCC met Criteria ?

Yes

Comments: Protocol allows up to 4 %RSD to be >25% if <40% (1,2,4-trichlorobenzene 24.7%) – not detected in samples

Calculate a CCC % RSD

C. 1. Was the tune for the initial calibration acceptable?

Yes

2. Was the calibration conducted within 12 hours of the tune

Yes

Comments:

D. Overall assessment of the initial calibration: (list the associated samples)

ok

♦ 0020\D0455 VALIDATION FORM\5

Site Name: Franklin Laboratory Name: Mitkem		
Reviewer: R.Petrella	Date of Review: 5/2/05	
Fraction: VOA		
VI. Continuing Calibration Summary (G	C/MS)	
Date of Initial Calibration: 4/21/05		
Date of Continuing Calibration: 4/21/05	File ID:V2G8031	
A. 1. All SPCC met criteria ?		
Yes		
Calculate a SPCC RRF		
Comments:		
2. All CCC met criteria ?		
Yes		
Calculate a CCC % D		
Comments:		
 B. Overall assessment of Continuin (list associated samples) OK, 	g Calibration	
	· · · · · · · · · · · · · · · · · · ·	

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 5/2/05

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin Laboratory Name: Mitkem			Mitkem	
Reviewer: <u>R.Petre</u>	lla	Date of Review: 5/2/05		
Fraction: VOA				
IX. Blank Summ	ary			
Date/Time of Analy	sis:	File I	D:	
<u>Compound</u>	Concentration	< <u>CROL</u>	<u>Comments</u>	

List the samples associated with this method blank.

♦0020\D0455 VALIDATION FORM\9

Site Name: Franklin

Laboratory Name: Mitkem

 Reviewer:
 R.Petrella
 Date of Review: 5/2/05

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

<u>Comments</u>

Site Name:	Franklin	Laboratory Name:Mitkem			
Reviewer:	R.Petrella	Date of Review: 5/2/05			
Fraction:	VOA				
XI. Matı	ix Spike/Matrix Spike Duplicatio	n Summary			
Sample ID: Site specific QC not provided Matrix:					
Did the MS/MSD recovery data meet the contract recommended requirements ?					
Yes					
If No, pleas	se note below.				
Blank spike	was analyzed and all recoverie	s were within limits			
<u></u>	Colorisation	<u> </u>			

Franklin Cleaners 2307-03

SDG: Number of Samples: Analysis:	Data Vali DO510 <u>3</u> Vora, Fe, Ma	dation Check List		2307-0:
Contractual Compliance		,		
Tunes:	VOA OR	SVOA	Pest/PCB NA	Metals NA
Surrogate Recoveries	OK		/	NA
Blanks	OR	$\frac{0}{2}$	·/	OR
Initial Calibrations	OK	$\underline{\mathbb{Q}}$	·	OK
Continuing Calibrations	OK	<u> </u>		OK
Spikes	Blank		QX	OK
Duplicates	_NA_			O.K.
Laboratory Control Samples	NA	NA		OK
Comments/Notes: $\mathcal{E} \mathcal{W} - I$	VTSR 5	3 Vo.	A reve 5/3	<u>, met 5/4</u>
EW-2 run	at a 1:2	- delution	~	
AS-1				
No problems.	found r	the do	ta prog.	
			·····	
				<u></u> -
		<u>۴</u>		
	·			
·			······································	

Franklen 2307-03

Metals

NA

NA

5/17,5/18

Data Validation Check List

SVOA

Pest/PCB

NA

SDG: Number of Samples: Analysis:

64

NA

⇒ASM

Contractual Compliance

Tunes:

Surrogate Recoveries

Blanks

Initial Calibrations

Continuing Calibrations

Spikes

Duplicates

Laboratory Control Samples

Comments/Notes:

ASMW-1

recovery 126% 4SM112owere As ND limit 125.

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NA

all

A11

-vank らく クマハフ.

Metals

NA

NA

Pest/PCB

NA

VOA ru

PCE

7)

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CONC.

Data Validation Check List

SVOA

NA

diln

DOSTOLO VITA, Fe, Nr, pH

Number of Samples: Analysis:

Contractual Compliance

Tunes:

SDG:

Surrogate Recoveries

Blanks

Initial Calibrations

Continuing Calibrations

Spikes

Duplicates

Laboratory Control Samples

Comments/Notes:

EWI $\mathcal{E}\omega$

W Ŋ aina an san

,

1:2

an

NA

TS

at

run

SDG:	Franklin Cleane	rs - D0105	8		
Number of Samples:	3				
Analysis:	VOA,	<u>Isanple</u>	Fe, Mn	рп	
Contractual Compliance		Ľ			
Tunes:	DK	<u>Metals</u> NA			
Surrogate Recoveries	0K	NA			
Blanks	<u> ok </u>	OK			
Initial Calibrations	<u> </u>	OK			
Continuing Calibrations	OK.	014			
Spikes	Black				
Duplicates					
Laboratory Control Samples		<u>ok</u>			
Comments/Notes:	D0658	EW-1	, EN-2	2, AS-1	
VTSR 6705	VDA	run 6/8	6.619		
• • •	Meta	als vun	6/20		
Ew-2 was	sur a	+ 1:2 b	ne to	elevate	d
levels	A yell	ackloroeth			
	-0				
Quea cts - mit	hin lini	ts			
1,00					
Data usable purposes	e for t	environme	ental a	souss	ment
puperer					
					· · · · · · · · · · · · · · · · · · ·
,					

Data Validation Check List

Data Validation Check List DDJI9 Franklin Cleaners -SDG: Number of Samples: Fe, MN, pH Analysis: **Contractual Compliance Metals** VO. Tunes: NA - Not provided Surrogate Recoveries NA 5 Blanks **Initial Calibrations Continuing Calibrations** ank-ok Spikes **Duplicates** Laboratory Control Samples EW-2 Comments/Notes: 07 V 5A NI 2 h)-à hre 1 a u a d, CouC 0 Keinas ٥ Л NA -5 Nam **A** A data •• nn V CQUIVE ANNAMA n ta 110 envior Q () 11.10 **a∩a** d

Data Validation Check L	ist
-------------------------	-----

	Data Valiua		
SDG: Number of Samples:	Franklin Cleaners	<u>-DOT79</u>	
Analysis: Contractual Compliance	NOH, Fe,M	γ	
	VOA	<u>Metals</u>	
Tunes:	OK	NA	
Surrogate Recoveries	OKA	NA	
Blanks	OL	<u>ok</u>	
Initial Calibrations	<u> ok</u>	OK	
Continuing Calibrations	<u> ok</u>	OK	
Spikes	Stankok	OK	
Duplicates	جمع میں میں اور	OK	
Laboratory Control Samples		01	
Comments/Notes:	<u>D0779-</u>	EW-1, EN-2	., AS-1
VTSK 1603	5 VOA	run 7/6/05	
	Metal	5 run 7/8/05	
	ach loroeth	une excuded	<u>calibration</u>
<u> </u>		lipes at a	Decondary J - Sample was verun
duurt	n was /	nos preservie	W - BUT NOT DILUTED
EW-QRE- E	SFB recove	ery 80% - NO.	ACTION REQUIRES
·			
area ets o	<u></u>		
Data valid	and un	nolde dos por	Ivon Mental
assessment .	Durposes.	tukil got en	(Tonmad ad
	7 7		

Data Validation Check List

SDG: Number of Samples: Analysis:	Franklin Cleaners - DO870 3 VDA, - Fe, MA, pH
Contractual Compliance	, Not Note
Tunes:	Metals NA -: Not provided
Surrogate Recoveries	OKX NA
Blanks	OK OK
Initial Calibrations	<u>ol</u>
Continuing Calibrations	OK OK
Spikes	Blank -
Duplicates	
Laboratory Control Samples	- OK
Comments/Notes:	DO870 - EW-1, EW-2, AS-/ 26/05 VOA run 7/28, 7/29
	Metals run 8/2
Ew-2 requ	ied reanalysis at 1:2.5 dilution
* Recovery a	J DE MEW-2DL 120% - no action required.
Data valid assessment	purposes.

Data Validation Check List				
SDG: Number of Samples: Analysis: Franklin Cleaners - D0924 ZEN, IAS VOA, Fe, Mn, PH - (As somple ONU)				
Contractual Compliance				
Tunes: VOA <u>Metals</u> NA				
Surrogate Recoveries <u>OK</u> <u>NA</u> -: Not provided				
Blanks Tetrachbroethene Off				
Initial Calibrations OK OK				
Continuing Calibrations OK OK				
Spikes Blankspike				
Duplicates				
Laboratory Control Samples OK_				
Comments/Notes: <u>DO924</u> EW-1, EW-2, AS-1 VTSR 8/9 VOA run 8/11 holding time OK Metalsrun 9/1				
Area cts - ok Tetrachloroethere mAs-1 Qualified as NS Sunce rethod Oblark had Jug/log Tetrachloroethere. # Concentrations m other samples we > 5 x that on blark gualification I data not required.				
Data usable for envuonmental assessment purposes.				

Data Validation Check List				
SDG: Number of Samples: Analysis:	Franklin Cleaners - D0958 Jwells + trip Vog			
Contractual Compliance	VOA <u>Metals</u>			
Tunes:	<u>VOA</u> <u>Metals</u> <u>NA</u>			
Surrogate Recoveries	<u>× NA</u>			
Blanks				
Initial Calibrations	ok for			
Continuing Calibrations				
Spikes	OK _			
Duplicates	OR _			
Laboratory Control Samples	<u> </u>			
Comments/Notes:	DO958 ASMW-1, ASMW-2, ASMW-3 ASMW-4, ASMW-5, ASMW-6, ASMW	1 . F F		
	<u>ASTAW-4, HOMW-5, HOMW-6, HOMM</u> TB-1)-1		
VTSR 8/16/05	VOA RUN 8/19 > 8/21 OK			
MS/MSB run on ASMW-2.				
¥TB-1 25	surr out rerien (TB-IRE) I surr out			
ASMW-1 ISUR OUT TOL-112%				
area cts - ok				
TB-1 had MeChz at 2 ugl minuteal & reanalysis				
TB-1 had Mellz at 2 wall in inclual & reanalysis not in samples - no qualification needed.				
VBIN5B. Tetrachlowethere Tug/ Ouly 9580ccated				

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Franklin Cleaners

	Data Valio	ation Check List		
SDG: Number of Samples: Analysis:	DID68 3 Maters Voa, nieto	ils		×
Contractual Compliance				
Tunes:	<u>voa</u>	SVOA	/ <u>Pest/PCB</u> / NA /	<u>Metals</u> NA
Surrogate Recoveries	OK	/	/	NA
Blanks	clean		/	OK
Initial Calibrations	OK			OK
Continuing Calibrations	Oll.			OR
Spikes	Blankspike	<u> </u>		
Duplicates		,	$\overline{\langle X \rangle}$	
Laboratory Control Samples	s na	NA		OK
Comments/Notes:	3 waters	٤ω-1,٤	EW-2 - VOT	7
Collected 9/16	analy morens	AS-1 ed 9/19 + ucs Min	- VOA, Ne 9/15 - H 9/26 pH	TOK Fe,Mn.
Mello VH Benzene 25	BIR5Y -	not in sa of Jata	ngle no g required	ualification
area cto	oK			
NO PROBLEM	лs			
			· · · · · · · · · · · · · · · · · · ·	
·····				
	••••••••••••••••••••••••••••••••••••••			<u></u>

Franklen Marens

Data Validation Check List SDG: 2 Number of Samples: waters Analysis: Fe, Mn, pH VOA **Contractual Compliance** VOA **SVOA** Pest/PCB **Metals** Tunes: NA NN NA Surrogate Recoveries NA Blanks Initial Calibrations **Continuing Calibrations** Rla 11 Spikes **Duplicates** Laboratory Control Samples NA NA Collected 9 210 VTSR Q_{l} Comments/Notes: б VOA run 9 29 9130 delition EW-Q second reanal at a ani NIS 0 10a × Juoroetha AS-1 1,1,2 Trickloyd 122 qua n N-1 15 le \mathbf{A} Hi) 1 m 0 mination 17A Doblens 10 10 Mi 15 Ľı Sa no

-ranklen loamon

Data Validation Check List SDG: Number of Samples: 4 Analysis: Vδ N Dt **Contractual Compliance** SVOA Pest/PCB **Metals** Tunes: NA NA Surrogate Recoveries NA Blanks lan Initial Calibrations Continuing Calibrations Black Spikes **Duplicates** Laboratory Control Samples NA NA Collected 10/10 VTSR 10/11 Comments/Notes: 0 ら VOV YU. N IN Ò P Ma n Usu Ole 11 2a 0

Franklen Meaners

Data Validation Check List

Dialelo <u>3 waters</u> VOA, Fe, MN, PH

Number of Samples:

SDG:

Analysis:

Contractual Compliance VOA **SVOA** Pest/PCB **Metals** Tunes: NA NA Surrogate Recoveries NA Blanks PA **Initial Calibrations** \mathcal{O} **Continuing Calibrations** Spikes **Duplicates** Laboratory Control Samples NA NA Collected 10/24 3 waters Comments/Notes: VIJR 42 run 10/27+ 10/28 VOA よ 10 & usable Valed Ą D lenor usu

Franklen Cleaners

	Data Va	lidation Check List		
SDG: Number of Samples: Analysis:	DI329 <u>3 waters</u> Voa, Fe, M	n, pH		
Contractual Compliance		- 1		
Tunes:	<u>voa</u> OK	SVOA	Pest/PCB NA,	<u>Metals</u> NA
Surrogate Recoveries	OK		/	NA
Blanks	clean	2		OK
Initial Calibrations	OK	No.	X	OK
Continuing Calibrations	OK	3		OK
Spikes	BKerk	<u>}</u>	Z	
Duplicates		/		
Laboratory Control Samples	NA	NA		014
Comments/Notes:	, Collecter	1 1/8 1	TSR 11/9	
VOA - run "/11/ metals - run "	05-			
EW2 require dilition the excuding the m	to conc to conc ust. calit	alysis a of titlac plation s	t a secor Korrethere zige	idanj
area cts - DK				
Noproblems	found	with sai	ngle res	ults.
		· · · · ·	· · ·	

Franklin Cleaners

Data Validation Check List

SDG: Number of Samples: tro + Trep Analysis: **Contractual Compliance SVOA** Pest/PCB **Metals** Tunes: NA NA Surrogate Recoveries NA Blanks Initial Calibrations **Continuing Calibrations** Spikes **Duplicates** NA Laboratory Control Samples NA MSIMSA Comments/Notes: un A. PMW H.T.OK Collecter 11 'α clean usuli NN l í IM

Franklin Cleaxers

	Data V	alidation Check List		
SDG: Number of Samples: Analysis:	DIAD a water VOA, Fe,	mn pH		
Contractual Compliance		7		
Tunes:	DK	<u>svoa</u>	Pest/PCB NA	<u>Metals</u> NA
Surrogate Recoveries	OK			NA
Blanks	£-			OK
Initial Calibrations	DK	<u> </u>		OK
Continuing Calibrations	OK	<u>S</u>		<u> </u>
Spikes	Black	¥	<u>×/</u>	
Duplicates	······································			
Laboratory Control Samples	NA	ŇĂ	/	$\underline{O} \leq$
Comments/Notes:	EW2, AS	-/	-	
EW-1 NOT	Sampled	- this rol	ind	
Collected "p1,	VISR "/2	2, sur	"/23/05 11/28/05	
area cts-ok		Mex	110-0105	
VBLK 5C - Xule	nes 3u	de- ne	+ detocta	d
in	any Sa	nole - qu	altration	- Ol
data	- rot r	equired D	alification	\mathcal{O}
				A AT
Noprøklems	Joura	WAR Jan	pu jusu	
			-	·
				<u></u>
			<u> </u>	

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Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: <u>R.Petrella</u>	Date of Review: <u>4/20/06</u>		
I. Data Deliverable Requirements			
A. Legible	Yes		
B. Paginated	Yes		
C. Arranged in order	Yes		
D. Consistent dates	Yes		
E. Case Narrative	Yes		
F. Chain-of-Custody Record	Yes		
G. Sample Data Complete	Yes		
H. Standard Date Complete	Yes		
I. Raw QC Data Complete	Yes		

Comments: D1476 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 12/5/05

All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:4/20/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	12/6/05		12/9/05	No
AS-1*	12/6/05		12/9/05	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:4/20/06

Fraction: VOA

III. Tune Summary

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V2H1730	YES	INITIAL
2. V2H1880	yes	Samples
3. V5G3750	YES	INITIAL AND BLANKS
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

هم د د د د د د د

Date of Review: 4/20/06

Fraction: VOA

IV. Initial Calibration Summary (GC/MS)

Date of Calibration: 12/6/05, 12/13

A. Standard Data Files

Standard 1 ID:	V2H1732, V5G3757	Conc:	10
Standard 2 ID:	V2H1738, V5G3760	Conc:	20
Standard 3 ID:	V2H1731, V5G3751	Conc:	50
Standard 4 ID:	V2H1735, V5G3758	Conc:	100
Standard 5 ID:	V2H1737, V5G3754	Conc:	200

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments: _____

Laboratory Name:Mitkem			
Date of Review: 4/20/06			
Date of Calibration: 12/6, 12/13			
ed)			
if <40%			
ation acceptable ?			
2. Was the calibration conducted within 12 hours of the tune			
ation:			

Site Name: Franklin	Laboratory Nar	Laboratory Name: Mitkem		
Reviewer: R.Petrella Date of Review: 4/2		ew: <u>4/20/06</u>		
Fraction: <u>VOA</u>				
VI. Continuing Calibration Summ	ary (GC/MS)			
Date of Initial Calibration: 12/6, 12/13	3			
Date of Continuing Calibration: 12/9		File ID:V2H1881, V5G3751		
A. 1. All SPCC met criter	ria ?			
	Yes			
Calculate a SPCC RRF				
Comments:				
2. All CCC met criteria ?				
	Yes			
Calculate a CCC % D				
Comments:				
 B. Overall assessment of C (list associated samples) OK, 				
ОК,				

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review: 4/20/06
Fraction: VOA	
VIII. Internal Standard Area Summary (G Were all internal standard peak areas withi	
	/es
If No, please note below	

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin		Laboratory Name: Mit	kem
Reviewer: <u>R.Petrella</u>		Date of Review: <u>4/2</u>	0/06
Fraction: VOA			
IX. Blank Summary			
Date/Time of Analysis:		File ID:	
<u>Compound</u>	Concentration	< <u>CROL</u>	Comments

List the samples associated with this method blank.

Trip blank clean, all other method blanks clean

+0020\D1476 VALIDATION FORM\8

Site Name:	Franklin	Laboratory Name:Mitkem
Reviewer:	R.Petrella	Date of Review:4/20/06
Fraction:	VOA	
X. Surro	ogate Recovery Summary	
Were all su	rrogate recoveries within the contract lim	its ?
	Y	ΈS

<u>Sample</u>

Surrogate Compound Outside Recovery Limits

Amount Above Contract Requirement

Comments

Site Name:	Franklin	Laboratory Name:Mitkem
Reviewer:	R.Petrella	Date of Review: 4/20/06
Fraction: Site	VOA specific QC was not provided	
	ix Spike/Matrix Spike Duplication	
Sample ID:		Matrix:
Did the MS	/MSD recovery data meet the co	ontract recommended requirements ?
	٢	⁄es
If No, pleas	se note below.	
Blank spike	e was analyzed and all recoverie	s were within limits

.

Site Name: Franklin	Laboratory Name: Mitkem
Reviewer: R.Petrella	Date of Review: <u>4/20/06</u>
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: D1564 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 12/21/05

All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/20/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	<u>Received</u>	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	12/22/05		12/28/05	No
AS-1*	12/22/05		12/28/05	No

*also run for pH, Fe & Mn

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer:
 R.Petrella

 Date of Review: 4/20/06

 Fraction:
 VOA

III. Tune Summary

Samples run within 24 hours of BFB, not 12

Tune File I.D. Number	Acceptable ?	Comments
1. V5G3750	YES	INITIAL
2. V5G4060	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		

Site Name: <u>Franklin</u>	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review: <u>4/20/06</u>
Fraction: <u>VOA</u>	
IV. Initial Calibration Summary (GC/MS)	
Date of Calibration: <u>12/13</u>	
A. Standard Data Files	
Standard 1 ID: V5G3757	Conc: <u>10</u>
Standard 2 ID: V5G3760	Conc: 20
Standard 3 ID: V5G3751	Conc: 50
Standard 4 ID: V5G3758	Conc: 100
Standard 5 ID: V5G3754	Conc: 200
B. 1. All SPCC met Criteria ?	

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>	
Reviewer: <u>R.Petrella</u>	Date of Review:4/20/06	
Fraction: VOA	Date of Calibration: <u>12/13</u>	
IV. Initial Calibration Summary (continue	ed)	
2. All CCC met Criteria ?		
Yes		
Comments:		
Calculate a CCC % RSD		
Protocol allows up to 4 %RSD to be >25% i	f <40%	
C. 1. Was the tune for the initial calibra	tion acceptable ?	
Yes		
2. Was the calibration conducted within 12 hours of the tune		
Yes		
Comments:		
 D. Overall assessment of the initial calibrat (list the associated samples) 	ion:	

ok

Site Name: Franklin	Laboratory Name: Mitkem
Reviewer: R.Petrella	Date of Review: <u>4/20/06</u>
Fraction: VOA	
VI. Continuing Calibration Summary (G	C/MS)
Date of Initial Calibration: 12/13	
Date of Continuing Calibration: <u>12/28</u>	File ID: <u>V5G4061</u>
A. 1. All SPCC met criteria?	
Yes	
Calculate a SPCC RRF	
Comments:	
2. All CCC met criteria ?	
Yes	
Calculate a CCC % D	
Comments:	
B. Overall assessment of Continuin (list associated samples)	g Calibration
<u>OK,</u>	

Site Name:	Franklin	Laboratory Name:Mitkem
Reviewer:	R.Petrella	Date of Review:
Fraction:	VOA	
VIII. Inter	nal Standard Area Summary (G	C/MS)
Were all int	ernal standard peak areas withir	the contract limits ?
	Y	es
If No, pleas	e note below	

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

11 A. A. A. A.

Site Name: Franklin		Laboratory Name: Mitkem		
Reviewer: R.Petrella		Date of Review: 4/20/06		
Fraction: VOA				
IX. Blank Summary				
Date/Time of Analysis:		File ID:		
Compound	Concentration	< <u>CROL</u>	<u>Comments</u>	

List the samples associated with this method blank.

,

method blanks clean

♦0020\D1564 VALIDATION FORM\8

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:4/20/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

<u>Sample</u>

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

<u>Comments</u>

Site Name: Fr	anklin	Laboratory Name: <u>Mitkem</u>
Reviewer: <u>R.</u>	Petrella	Date of Review:4/20/06
Fraction: VC	DA	
Site sp	ecific QC was not provided	
XI. Matrix S	Spike/Matrix Spike Duplication	Summary
Sample ID: _		Matrix:
Did the MS/MSD recovery data meet the contract recommended requirements ?		
	Y	es
If No, please n	note below.	
Blank spike wa	as analyzed and all recoveries	were within limits

DATA VALIDATION – METALS

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Site Name: Franklin	Laboratory Name: Mitkem	
Reviewer: <u>R.Petrella</u>	Date of Review: <u>4/21/06</u>	
I. Data Deliverable Requirements		
A. Legible	Yes	
B. Paginated	Yes	
C. Arranged in order	Yes	
D. Consistent dates	Yes	
E. Case Narrative	Yes	
F. Chain-of-Custody Record	Yes	
G. Sample Data Complete	Yes	
H. Standard Date Complete	Yes	
I. Raw QC Data Complete	Yes	

Comments: E0009 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

,

Samples were collected on 1/4/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:4/21/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	1/5/06		1/6/06	No
AS-1*	1/5/06		1/6/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:4/21/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V5G4190	YES	INITIAL and samples
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Site Name: Franklin	Laboratory Name:Mitkem			
Reviewer: R.Petrella	Date of Review:4/21/06			
Fraction: VOA				
IV. Initial Calibration Summary (GC/MS)				
Date of Calibration: <u>1/6/06</u>				
A. Standard Data Files				
Standard 1 ID: V5G4192	Conc: <u>10</u>			
Standard 2 ID: V5G4195	Conc: 20			
Standard 3 ID: V5G4191	Conc: 50			
Standard 4 ID: V5G4194	Conc: 100			
Standard 5 ID: V5G4196	Conc: 200			
B. 1. All SPCC met Criteria ?				

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>		
Reviewer: <u>R.Petrella</u>	Date of Review: <u>4/21/06</u>		
Fraction: VOA	Date of Calibration: 1/6/06		
IV. Initial Calibration Summary (continued)			
2. All CCC met Criteria ?			
Yes			
Comments:			
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40%			
C. 1. Was the tune for the initial calibrat	ion acceptable ?		
Yes			
2. Was the calibration conducted within 12 hours of the tune			
Yes			
Comments:			
 D. Overall assessment of the initial calibration: (list the associated samples) 			

ok

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>	
Reviewer: R.Petrella	Date of Review: <u>4/21/06</u>	
Fraction: VOA		
VI. Continuing Calibration Summary (G	C/MS)	
Date of Initial Calibration: 1/6/06		
Date of Continuing Calibration: 1/6/06	File ID:V5G4191	
A. 1. All SPCC met criteria ?		
Yes		
Calculate a SPCC RRF		
Comments:		
2. All CCC met criteria ?		
Yes		
Calculate a CCC % D		
Comments:		
 B. Overall assessment of Continuin (list associated samples) OK, 		

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin		Laboratory Name:Mit	kem
Reviewer: <u>R.Petrella</u>		Date of Review: <u>4/2</u>	1/06
Fraction: VOA			
IX. Blank Summary			
Date/Time of Analysis:		File ID:	
Compound	Concentration	< <u>CROL</u>	<u>Comments</u>

 \mathbf{p}_{i}

List the samples associated with this method blank.

method blanks clean

♦0020\E0009 VALIDATION FORM\8

Site Name: Franklin

Reviewer: R.Petrella Date of Review:4/21/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Laboratory Name: Mitkem

Comments

Site Name: Franklin	Laboratory Name: Mitkem	
Reviewer: R.Petrella	Date of Review: 4/21/06	
Fraction: <u>VOA</u> Site specific QC was not provided XI. Matrix Spike/Matrix Spike Duplication		
Sample ID:	Matrix:	
Did the MS/MSD recovery data meet the contract recommended requirements ?		
	Yes	
If No, please note below.		
Blank spike was analyzed and all recoverie	es were within limits	

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review: <u>4/21/06</u>
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: E0076 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 1/24/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:4/21/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	<u>Received</u>	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	1/25/06		1/27/06	No
AS-1*	1/25/06		1/27/06	No

*also run for pH, Fe & Mn

Site Name: Franklin Lab

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V2H2390	YES	INITIAL and samples
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Site Name:	Franklin		Laboratory Name:	/litkem
Reviewer:	R.Petrella		Date of Review:	/21/06
Fraction:	VOA			
IV. Initia	al Calibration Su	ımmary (GC/MS)		
Date of Ca	libration: <u>1/27/0</u>	6		
A.	Standard Data	Files		
	Standard 1 ID:	V2H2392	Conc	: <u>10</u>
	Standard 2 ID:	V2H2395	Conc	: 20
	Standard 3 ID:	V2H2396	Conc	: 50
	Standard 4 ID:	V2H2394	Conc	: 100
	Standard 5 ID:	V2H2393	Conc	: 200
_				

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: <u>Franklin</u>	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review: 4/21/06	
Fraction: VOA	Date of Calibration: 1/27/06	
IV. Initial Calibration Summary (continu	ed)	
2. All CCC met Criteria ?		
Yes		
Comments:		
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25%	if <40%	
C. 1. Was the tune for the initial calibration	ation acceptable ?	
Yes		
2. Was the calibration conducted within 12 hours of the tune		
Yes		
Comments:		

D. Overall assessment of the initial calibration: (list the associated samples)

ok

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review: 4/21/06		
Fraction: VOA	_		
VI. Continuing Calibration Summary (GC/MS)		
Date of Initial Calibration: 1/27/06			
Date of Continuing Calibration: 1/27/06	File ID: <u>V2H2396</u>		
A. 1. All SPCC met criteria ?			
Ye	es		
Calculate a SPCC RRF			
Comments:			
2. All CCC met criteria ?			
Ye	es		
Calculate a CCC % D			
Comments:			
B. Overall assessment of Continu (list associated samples) OK,			

.

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: <u>Frar</u>	nklin	Laboratory Name: <u>M</u>	itkem
Reviewer: <u>R.P</u>	etrella	Date of Review: <u>4/</u>	21/06
Fraction: <u>VO</u>	A		
IX. Blank Su	mmary		
Date/Time of Ar	nalysis:	File ID):
<u>Compound</u>	<u>Concentration</u>	<u>< CROL</u>	<u>Comments</u>

List the samples associated with this method blank.

method blanks clean

♦0020\E0076 VALIDATION FORM\8

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella Date of Review: 4/21/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

<u>Comments</u>

Site Name:	Franklin	Laboratory Name:Mitkem
Reviewer:	R.Petrella	Date of Review: 4/21/06
Fraction:	VOA	
Site	specific QC was not provided	
XI. Matr	ix Spike/Matrix Spike Duplicatior	n Summary
Sample ID:		Matrix:
Did the MS/MSD recovery data meet the contract recommended requirements ?		
	Y	Yes
lf No, pleas	e note below.	
Blank spike	was analyzed and all recoveries	s were within limits

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review: 4/21/06
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: E0133 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 2/6/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:4/21/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	2/6/06		2/8/06	No
AS-1*	2/6/06		2/8/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V2H2390	YES	INITIAL
2. V2H2510	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		

Site Name:	Franklin		Laborato	ry Name: <u>Mi</u>	tkem
Reviewer:	R.Petrella		Date o	f Review: <u>4/2</u>	21/06
Fraction:	VOA				
IV. Initia	l Calibration Su	ımmary (GC/MS)	1		
Date of Cal	ibration: <u>1/27/0</u>	6			
A. 3	Standard Data	Files			
;	Standard 1 ID:	V2H2392		Conc:	10
;	Standard 2 ID:	V2H2395		Conc:	20
;	Standard 3 ID:	V2H2396		Conc:	50
;	Standard 4 ID:	V2H2394		Conc:	100
:	Standard 5 ID:	V2H2393		Conc:	200

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review: 4/21/06
Fraction: VOA	Date of Calibration: 1/27/06
IV. Initial Calibration Summary (continued	(F
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if	<40%
C. 1. Was the tune for the initial calibrat	ion acceptable ?
Yes	
2. Was the calibration conducted with	nin 12 hours of the tune
Yes	
Comments:	
 D. Overall assessment of the initial calibration (list the associated samples) 	on:

ok

Site Name: Franklin	Laboratory Name: Mitkem
Reviewer: R.Petrella	Date of Review: 4/21/06
Fraction: VOA	
VI. Continuing Calibration Summary (G	C/MS)
Date of Initial Calibration: 1/27/06	
Date of Continuing Calibration: 2/8/06	File ID: <u>V2H2511</u>
A. 1. All SPCC met criteria ?	
Yes	3
Calculate a SPCC RRF	
Comments:	
2. All CCC met criteria ?	
Yes	;
Calculate a CCC % D	
Comments:	
B. Overall assessment of Continui (list associated samples) OK,	

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin		Laboratory Name:	litkem
Reviewer: R.Petrella	I	Date of Review:4	/21/06
Fraction: VOA			
IX. Blank Summar	у		
Date/Time of Analysis	:	File II	D:
<u>Compound</u>	Concentration	<u>< CROL</u>	<u>Comments</u>

List the samples associated with this method blank.

method blanks clean

♦0020\E0133 VALIDATION FORM\8

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: R.Petrella Date of Review:4/21/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name	Franklin	Laboratory Name:Mitkem
Reviewer:	R.Petrella	Date of Review: <u>4/21/06</u>
Fraction:	VOA specific QC was not provided	
	rix Spike/Matrix Spike Duplication	
Sample ID:		Matrix:
Did the MS	/MSD recovery data meet the co	ntract recommended requirements ?
	Y	/es
lf No, pleas	se note below.	
Blank spike	e was analyzed and all recoveries	s were within limits

Site Name: Franklin	Laboratory Name: Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review: 4/21/06
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: E0188 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 2/21/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:4/21/06

II. Holding Times

a 1.15	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	<u>Received</u>	<u>Extracted</u>	<u>Analyzed</u>	Exceeded?
EW-2	2/21/06		2/27/06	No
AS-1*	2/21/06		2/27/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V2H2520	YES	INITIAL
2. V2H2840	YES	SAMPLES
3.		
4.	· · · ·	
5.		
6.		
7.		
8.		

Site Name	Franklin	Laboratory Name:Mi	tkem
Reviewer:	R.Petrella	Date of Review: <u>4/2</u>	21/06
Fraction:	VOA		
IV. Initia	al Calibration Summary (GC/MS)		
Date of Ca	libration: <u>2/10/06</u>		
A.	Standard Data Files		
	Standard 1 ID: V2H2522	Conc:	10
	Standard 2 ID: V2H2526	Conc:	20
	Standard 3 ID: <u>V2H2528</u>	Conc:	50

Standard 4 ID: V2H2525 Standard 5 ID: V2H2524

Conc:	50
Conc:	100
Conc:	200

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments:

♦0020\E0188 VALIDATION FORM\4

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review: 4/21/06		
Fraction: VOA	Date of Calibration:2/10/06		
IV. Initial Calibration Summary (continued)			
2. All CCC met Criteria ?			
Yes			
Comments:			
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40%			
C. 1. Was the tune for the initial calibration acceptable ?			
Yes			
2. Was the calibration conducted within 12 hours of the tune			
Yes			
Comments:			
 D. Overall assessment of the initial calibration: (list the associated samples) 			

•

. .

ok

Site Name: Franklin	Laboratory Name:Mitkem			
Reviewer: R.Petrella	Date of Review:4/21/06			
Fraction: VOA				
VI. Continuing Calibration Summary (GC	C/MS)			
Date of Initial Calibration:2/10/06				
Date of Continuing Calibration: 2/27/06	File ID: <u>V2H2841</u>			
A. 1. All SPCC met criteria ?				
Yes				
Calculate a SPCC RRF				
Comments:				
2. All CCC met criteria ?				
Yes				
Calculate a CCC % D				
Comments:				
 B. Overall assessment of Continuin (list associated samples) OK, 	-			

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin		Laboratory Name: Mitke	em
Reviewer: <u>R.Petrella</u>		Date of Review: <u>4/21/</u>	06
Fraction: VOA			
IX. Blank Summary			
Date/Time of Analysis:		File ID:	
<u>Compound</u>	<u>Concentration</u>	< <u>CROL</u>	<u>Comments</u>

List the samples associated with this method blank.

method blanks clean

♦0020\E0188 VALIDATION FORM\8

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: R.Petrella Date of Review:4/21/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

<u>Sample</u>

Surrogate Compound Outside Recovery Limits

Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name:Mitkem			
Reviewer: <u>R.Petrella</u>	Date of Review:4/21/06			
Fraction: <u>VOA</u> Site specific (QC was not provided			
XI. Matrix Spike/Matrix Spike Duplication Summary				
Sample ID:	Matrix:			
Did the MS/MSD recovery data meet the contract recommended requirements ?				
Yes				
If No, please note below.				
Blank spike was analyzed and all recoveries were within limits				

: Pres

¥

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review: 4/21/06
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: E0201 – 7 water samples and 1 TB were collected and analyzed for VOA Samples were collected on 2/23/06

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All metal QC met requirements

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:4/21/06

II. Holding Times

<u>Sample I.D.</u> ASMW-4	Date <u>Received</u> 2/24/06	Date <u>Extracted</u>	Date <u>Analyzed</u> 2/27/06	Holding Time <u>Exceeded?</u> No
ASMW-4 ASMW-5	2/24/06		2/27/06	No
ASMW-5 ASMW-7	2/24/06		2/27/06	No
TB#1	2/24/06		2/27/06	No
ASMW-6	2/24/06		2/27/06	No
ASMW-3	2/24/06		2/27/06	No
ASMW-2	2/24/06		2/27/06	No
ASMW-1*	2/24/06		2/27/06	No
* run as MS/MSD				

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

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Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V2H2520	YES	INITIAL
2. V2H2840	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		

Franklin		Laborato	ry Name: <u>Mit</u>	kem
R.Petrella		Date o	f Review: <u>4/2</u>	21/06
VOA				
al Calibration Su	mmary (GC/MS))		
libration: <u>2/10/0</u>	6			
Standard Data	Files			
Standard 1 ID:	V2H2522		Conc:	10
Standard 2 ID:	V2H2526		Conc:	20
Standard 3 ID:	V2H2528		Conc:	50
Standard 4 ID:	V2H2525		Conc:	100
Standard 5 ID:	V2H2524		Conc:	200
	R.Petrella VOA al Calibration Su libration: 2/10/0 Standard Data I Standard 1 ID: Standard 2 ID: Standard 3 ID: Standard 4 ID:	R.Petrella VOA	R.Petrella Date o VOA	R.Petrella Date of Review:4/2 VOA

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments: _____

♦0020\E0201VALIDATION FORM\4

Reviewer: R.Petrella Date of Review: 4/21/06 Fraction: VOA Date of Calibration: 2/10/06 IV. Initial Calibration Summary (continued) 2. All CCC met Criteria ? Yes Comments: Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40% C. 1. Was the tune for the initial calibration acceptable ? Yes	Experimentation Stress	
IV. Initial Calibration Summary (continued) 2. All CCC met Criteria ? Yes Comments: Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40% C. 1. Was the tune for the initial calibration acceptable ?	R.Petrella Date of Review: 4/21/06	
 2. All CCC met Criteria ? Yes Comments:	VOA Date of Calibration:2/10/06	
Yes Comments: Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40% C. 1. Was the tune for the initial calibration acceptable ?	al Calibration Summary (continued)	
Comments: Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40% C. 1. Was the tune for the initial calibration acceptable ?	All CCC met Criteria ?	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40% C. 1. Was the tune for the initial calibration acceptable ?	Yes	
Protocol allows up to 4 %RSD to be >25% if <40% C. 1. Was the tune for the initial calibration acceptable ?	s:	
	llows up to 4 %RSD to be >25% if <40%	
	Was the tune for the initial calibration acceptable ? Yes	
2. Was the calibration conducted within 12 hours of the tune	Was the calibration conducted within 12 hours of the tune	
Yes	Yes	
Comments:	s:	
 D. Overall assessment of the initial calibration: (list the associated samples) ok 	e associated samples)	

Site Name: Franklin	Laboratory Name:Mitkem				
Reviewer: <u>R.Petrella</u>	Date of Review: 4/21/06				
Fraction: VOA					
VI. Continuing Calibration Summary (G	SC/MS)				
Date of Initial Calibration: 2/10/06					
Date of Continuing Calibration: 2/27/06	File ID:V2H2841				
A. 1. All SPCC met criteria ?					
Ye	S				
Calculate a SPCC RRF	Calculate a SPCC RRF				
Comments:					
2. All CCC met criteria ?					
Ye	S				
Calculate a CCC % D					
Comments:					
 B. Overall assessment of Continue (list associated samples) OK, 					

Site Name: Franklin

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review: 4/21/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin		Laboratory Name:Mitke	m
Reviewer: <u>R.Petrella</u>		Date of Review: <u>4/21/</u>	06
Fraction: VOA			
IX. Blank Summary			
Date/Time of Analysis:		File ID:	
Compound	<u>Concentration</u>	< CROL	<u>Comments</u>

List the samples associated with this method blank.

Trip blank and method blank clean

.

Site Name: Franklin

Reviewer: R.Petrella Date of Review:4/21/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Laboratory Name: Mitkem

Comments

Site Name:	Franklin	Laboratory Name:Mitkem			
Reviewer:	R.Petrella	Date of Review: <u>4/21/06</u>			
Fraction:	VOA				
XI. Matı	XI. Matrix Spike/Matrix Spike Duplication Summary				
Sample ID:	ASMW-1	Matrix:water			
Did the MS/MSD recovery data meet the contract recommended requirements ?					
	Ŋ	Yes			
lf No, pleas	se note below.				
Blank spike was analyzed and all recoveries were within limits					

.

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review: <u>6/19/06</u>
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: E0244– 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

ł

Samples were collected on 3/7/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	Analyzed	Exceeded?
EW-2	3/8/06		3/12/06	No
AS-1*	3/8/06		3/12/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Fraction: VOA

Date of Review: 6/19/06

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V5G5270	YES	INITIAL & samples
2. V2G5340	YES	blank
3.		
4.		
5.		
6.		
7.		
8.		

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review:6/19/06
Fraction: VOA	
IV. Initial Calibration Summary (GC/MS)	
Date of Calibration: <u>3/12/06</u>	
A. Standard Data Files	
Standard 1 ID: V2G5272	Conc: 10
Standard 2 ID: V2G5275	Conc: 20
Standard 3 ID: V2G5271	Conc: 50
Standard 4 ID: V2G5274	Conc: 100
Standard 5 ID: V2G5273	Conc: 200

B. 1. All SPCC met Criteria ?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name	: Franklin	Laboratory Name:Mitkem
Reviewer:	R.Petrella	Date of Review:6/19/06
Fraction:	VOA	Date of Calibration: <u>3/12/06</u>
IV. Initi	al Calibration Summary (continued)
2.	All CCC met Criteria ?	
	Yes	
Comments	:	
Protocol al C. 1. V	culate a CCC % RSD lows up to 4 %RSD to be >25% if < Was the tune for the initial calibratic Yes	on acceptable ?
2. V	Vas the calibration conducted withi	n 12 hours of the tune
	Yes	
Comments		
	assessment of the initial calibratio associated samples)	n:

♦0020\E0244 VALIDATION FORM.DOC\5

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review: <u>6/19/06</u>	
Fraction: VOA		
VI. Continuing Calibration Summary (GC	C/MS)	
Date of Initial Calibration: 4/12/06		
Date of Continuing Calibration: 3/12, 3/14	File ID:V2G5271, V2G5341	
A. 1. All SPCC met criteria ?		
Yes		
Calculate a SPCC RRF		
Comments:		
2. All CCC met criteria ?		
Yes		
Calculate a CCC % D		
Comments:		
 B. Overall assessment of Continuing (list associated samples) OK, 	g Calibration	

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer:
 R.Petrella

 Date of Review:
 6/19/06

 Fraction:
 VOA

 VIII.
 Internal Standard Area Summary (GC/MS)

 Were all internal standard peak areas within the contract limits ?

 Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin		Laboratory Name:Mitkem	
Reviewer: R.Petrella Date of Review: 6/19/06		/19/06	
Fraction: VOA			
IX. Blank Summary			
Date/Time of Analysis:		File I	D:
<u>Compound</u>	Concentration	< <u>CROL</u>	Comments

List the samples associated with this method blank.

method blanks clean

♦0020\E0244 VALIDATION FORM.DOC\8

Site Name: Franklin

Laboratory Name:Mitkem

 Reviewer:
 R.Petrella
 Date of Review:6/19/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above <u>Contract Requirement</u>

Comments

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review:6/19/06		
Fraction: <u>VOA</u> Site specific QC was not provided XI. Matrix Spike/Matrix Spike Duplication Summary			
Sample ID:	Matrix:		
Did the MS/MSD recovery data meet the contract recommended requirements ?			
Yes			
If No, please note below.			
Blank spike was analyzed and all recoveries were within limits			

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: <u>R.Petrella</u>	Date of Review:6/19/06	
I. Data Deliverable Requirements		
A. Legible	Yes	
B. Paginated	Yes	
C. Arranged in order	Yes	
D. Consistent dates	Yes	
E. Case Narrative	Yes	
F. Chain-of-Custody Record	Yes	
G. Sample Data Complete	Yes	
H. Standard Date Complete	Yes	
I. Raw QC Data Complete	Yes	

Comments: E0331 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 3/22 & 3/23/06

The VOA vials of AS-1 were received broken so the VOA fraction was resampled on 3/23/06

All metal QC met requirements

 Site Name: Franklin
 Laboratory Name: Mitkem

 Reviewer: R.Petrella
 Date of Review: 6/19/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	3/22/06		3/24/06	No
AS-1*	3/23/06		3/24/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V5G5270	YES	INITIAL
2. V5G5680	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 6/19/06

Fraction: VOA

IV. Initial Calibration Summary (GC/MS)

Date of Calibration: 3/12/06

A. Standard Data Files

Standard 1 ID:	V5G5272
Standard 2 ID:	V5G5275
Standard 3 ID:	V5G5271
Standard 4 ID:	V5G5274
Standard 5 ID:	V5G5273

10	
20	
50	
100	·
200	
	20 50 100

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review:6/19/06
Fraction: VOA	Date of Calibration:3/12/06
IV. Initial Calibration Summary (continu	ed)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% C. 1. Was the tune for the initial calibra	
Yes	
2. Was the calibration conducted w	ithin 12 hours of the tune
Yes	
Comments:	
D. Overall assessment of the initial calibra (list the associated samples)	ation:
<u>ok</u>	

♦0020\E0331 VALIDATION FORM.DOC\5

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review:6/19/06	
Fraction: VOA		
VI. Continuing Calibration Summary (GC	C/MS)	
Date of Initial Calibration: 3/12/06		
Date of Continuing Calibration: 3/24	File ID:V2G5681	
A. 1. All SPCC met criteria ?		
Yes		
Calculate a SPCC RRF	· · · · · · · · · · · · · · · · · · ·	
Comments:		
	<u> </u>	
2. All CCC met criteria ?		
Yes		
Calculate a CCC % D		
Comments:		
B. Overall assessment of Continuin (list associated samples)	g Calibration	
ОК,		

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 6/19/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review: 6/19/06	
Fraction: VOA		
IX. Blank Summary		
Date/Time of Analysis: <u>3/24/06</u>	File ID: <u>VBLK5K</u>	
<u>Compound</u> <u>Concentration</u> 1,2,4- 1 UG/L trichlorobenzene	< <u>CROL</u> <u>Comments</u> Compound not detected in samples, qualification of the data not required	

List the samples associated with this method blank. method blanks clean

Site Name: Franklin

Laboratory Name:Mitkem

Date of Review:6/19/06

Reviewer: R.Petrella

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Nar	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Revie	Date of Review:6/19/06	
Fraction: VOA			
Site specific QC wa	is not provided		
XI. Matrix Spike/Matrix S	Spike Duplication Summary		
Sample ID:	Matr	ix:	
Did the MS/MSD recovery of	data meet the contract recomme	nded requirements ?	
·	Yes		
If No, please note below. Blank spike was analyzed a	and all recoveries were within lim	its	
÷ .			

Site Name: Franklin	Laboratory Name:Mitkem			
Reviewer: <u>R.Petrella</u>	Date of Review:6/19/06			
I. Data Deliverable Requirements				
A. Legible	Yes			
B. Paginated	Yes			
C. Arranged in order	Yes			
D. Consistent dates	Yes			
E. Case Narrative	Yes			
F. Chain-of-Custody Record	Yes			
G. Sample Data Complete	Yes			
H. Standard Date Complete	Yes			
I. Raw QC Data Complete	Yes			

Comments: E0397 - 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 4/3/06

١.

All metal QC met requirements

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	Analyzed	Exceeded?
EW-2	4/4/06		4/9/06	No
AS-1*	4/4/06		4/9/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

III. Tune Summary

Acceptable ?	Comments
YES	INITIAL
YES	SAMPLES
	YES

Site Name	: Franklin		Laboratory Nar	ne: <u>Mi</u>	tkem		•
Reviewer:	R.Petrella		Date of Revi	ew: <u>6/1</u>	9/06		
Fraction:	VOA	 		·			
IV. Initia	al Calibration Su	ummary (GC/MS)					
Date of Ca	libration: <u>4/6/06</u>)					
A.	Standard Data	Files					
	Standard 1 ID:	V1H4267	C	Conc:	10		
	Standard 2 ID:	V1H4266	C	Conc:	20	·	
	Standard 3 ID:	V1H4261	C	Conc:	50		••
· · ·	Standard 4 ID:	V1H4265	C	Conc:	100		
· · ·	Standard 5 ID:	V1H4264	C	Conc:	200	-	
B.	1. All SPCC n	net Criteria ?	· ·				· · · · · ·
	•	Yes					-
	2. Calculate a	SPCC average R	RF				
Corr	iments:						
		·		<u></u>			

♦0020\E0397 VALIDATION FORM.DOC\4

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review:6/19/06
Fraction: VOA	Date of Calibration:4/6/06
IV. Initial Calibration Summary (continue	d)
2. All CCC met Criteria ?	
Yes	
Comments:	
·	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if	⁴
C. 1. Was the tune for the initial calibrat	ion acceptable ?
Yes	
2. Was the calibration conducted with	hin 12 hours of the tune
Yes	
Comments:	
 D. Overall assessment of the initial calibrat (list the associated samples) ok 	ion:

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	eviewer: R.Petrella Date of Review:6/19/06		
Fraction: VOA			
VI. Continuing Calibration Summary (GC	C/MS)		
Date of Initial Calibration: 4/6/06			
Date of Continuing Calibration: 4/9	File ID: <u>V1H4401</u>		
A. 1. All SPCC met criteria ?			
Yes			
Calculate a SPCC RRF			
Comments:			
2. All CCC met criteria ?			
Yes			
Calculate a CCC % D			
Comments:			
B. Overall assessment of Continuin (list associated samples)	g Calibration		
ОК,			

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 6/19/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	_ Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review:6/19/06		
Fraction: VOA			
IX. Blank Summary			
Date/Time of Analysis:	File ID:		
<u>Compound</u> <u>Concentration</u>	< <u>CROL</u> <u>Comments</u>		
List the samples associated with this metho method blanks clean	d blank.		

Site Name: Franklin

Laboratory Name:Mitkem

Date of Review:6/19/06

Reviewer: R.Petrella

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample .

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review:6/19/06
Fraction: VOA	
Site specific QC was not provi	ded
XI. Matrix Spike/Matrix Spike Duplic	ation Summary
Sample ID:	Matrix:
Did the MS/MSD recovery data meet th	e contract recommended requirements ?
	Yes
If No. places note below	
If No, please note below.	
Blank spike was analyzed and all recov	
· · · · · · · · · · · · · · · · · · ·	

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: <u>R.Petrella</u>	Date of Review: <u>6/19/06</u>		
I. Data Deliverable Requirements			
A. Legible	Yes		
B. Paginated	Yes		
C. Arranged in order	Yes		
D. Consistent dates	Yes		
E. Case Narrative	Yes		
F. Chain-of-Custody Record	Yes		
G. Sample Data Complete	Yes		
H. Standard Date Complete	Yes		
I. Raw QC Data Complete	Yes		

Comments: E0486 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 4/18/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

II. Holding Times

	Date	Date	Date	Holding Time
Sample I.D.	Received	Extracted	Analyzed	Exceeded?
EW-2	4/19/06		4/22/06	No
AS-1*	4/19/06		4/22/06	No

*also run for pH, Fe & Mn

♦0020\E0486 VALIDATION FORM.DOC\2

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer:R.PetrellaFraction:VOA

Date of Review:6/19/06

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V1H4790	YES	INITIAL
2. V1H4820	YES	SAMPLES
3.		
4.		
5.		
6.		
7		
8.		
		· · · · · · · · · · · · · · · · · · ·

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

IV. Initial Calibration Summary (GC/MS)

Date of Calibration: 4/21/06

A. Standard Data Files

Standard 1 ID:	V1H4792	Conc:	10
Standard 2 ID:	V1H4795	Conc:	20
Standard 3 ID:	V1H4791	Conc:	50
Standard 4 ID:	V1H4794	Conc:	100
Standard 5 ID:	V1H4793	Conc:	200

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments: _____

♦0020\E0486 VALIDATION FORM.DOC\4

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review:6/19/06
Fraction: VOA	Date of Calibration:4/21/06
IV. Initial Calibration Summary (continu	ed)
2. All CCC met Criteria?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% C. 1. Was the tune for the initial calibra	
Yes	
2. Was the calibration conducted w	ithin 12 hours of the tune
Yes	
Comments:	
 D. Overall assessment of the initial calibra (list the associated samples) ok 	ation:

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review:6/19/06		
Fraction: VOA	-		
VI. Continuing Calibration Summary (GC/MS)		
Date of Initial Calibration: 4/21/06	· · ·		
Date of Continuing Calibration: 4/22		File ID:V1H4821	
A. 1. All SPCC met criteria ?			
Ye	es		
Calculate a SPCC RRF			
Comments:	*******		
2. All CCC met criteria ?			
Ye	es		
Calculate a CCC % D			
Comments:			
 B. Overall assessment of Continu (list associated samples) OK, 	uing Calibration		

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 6/19/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Frankl	in	Laboratory Name:Mitkem		
Reviewer: R.Petr	ella	Date of Review:6/19/06		
Fraction: VOA		_ · · · ·		
IX. Blank Sum	mary			
Date/Time of Analysis: 4/19/06		File ID:VHBLK1R		
Compound	Concentration	< <u>CROL</u>	<u>Comments</u>	
Chloroform	1 ug/l		Compound not found in sample, qualification of the data not required	

List the samples associated with this method blank.

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits

Amount Above Contract Requirement

Comments

Site specific QC was not provided	Date of Review:6/19/06
Site specific QC was not provided	
XI. Matrix Spike/Matrix Spike Duplication S	Summary
Sample ID:	Matrix:
Did the MS/MSD recovery data meet the contr	ract recommended requirements ?
Yes	S
If No, please note below.	
Blank spike was analyzed and all recoveries v	vere within limits

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: <u>R.Petrella</u>	Date of Review:6/19/06	
I. Data Deliverable Requirements		
A. Legible	Yes	
B. Paginated	Yes	
C. Arranged in order	Yes	
D. Consistent dates	Yes	
E. Case Narrative	Yes	
F. Chain-of-Custody Record	Yes	
G. Sample Data Complete	Yes	
H. Standard Date Complete	Yes	
I. Raw QC Data Complete	Yes	

Comments: E0602 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 5/9/06

All metal QC met requirements

Iron result for AS-1 was 721 ug/l, however the duplicate and spike had concentrations of non-detect and 86 ug/l which is more consistent with historical data, therefore the iron result is qualified as estimated/suspect.

♦0020\E0602 VALIDATION FORM.DOC\1

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	5/10/06		5/16/06	No
AS-1*	5/10/06		5/16/06	No

*also run for pH, Fe & Mn

Site Name: Franklin Labora

Laboratory Name:Mitkem

Reviewer: <u>R.Petrella</u> Fraction: VOA Date of Review: 6/19/06

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V5G7010	YES	INITIAL & samples
2. V5G7040	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

IV. Initial Calibration Summary (GC/MS)

Date of Calibration: 5/15/06

A. Standard Data Files

Standard 1 ID:	V5G7012	Conc:	<u>10</u>
Standard 2 ID:	V5G7016	Conc:	20
Standard 3 ID:	V5G7011	Conc:	50
Standard 4 ID:	V5G7015	Conc:	100
Standard 5 ID:	V5G7014	Conc:	200

B. 1. All SPCC met Criteria?

Yes

.

2. Calculate a SPCC average RRF

Comments:

♦0020\E0602 VALIDATION FORM.DOC\4

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review:6/19/06
Fraction: VOA	Date of Calibration: 5/15/06
IV. Initial Calibration Summary (continue	ed)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% i	f <40%
C. 1. Was the tune for the initial calibra	tion acceptable ?
Yes	
2. Was the calibration conducted wit	thin 12 hours of the tune
Yes	
Comments:	
 D. Overall assessment of the initial calibra (list the associated samples) ok 	tion:

♦0020\E0602 VALIDATION FORM.DOC\5

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review:6/19/06	
Fraction: VOA		
VI. Continuing Calibration Summary (GC	/MS)	
Date of Initial Calibration: 5/15/06		
Date of Continuing Calibration: 5/15, 5/16	File ID:V5G7011, V5G7041	
A. 1. All SPCC met criteria ?	· · ·	
Yes		
Calculate a SPCC RRF		
Comments:		
2. All CCC met criteria ?		
Yes		
Calculate a CCC % D		
Comments:		
 B. Overall assessment of Continuing (list associated samples) 	g Calibration	
OK,		

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 6/19/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Frank	lin	Laboratory Name:	Mitkem
Reviewer: <u>R.Pet</u>	rella	Date of Review:	6/19/06
Fraction: VOA	· · ·	-	
IX. Blank Sum	mary		
Date/Time of Ana	lysis:	File	ID:
Compound	Concentration	< CROL	<u>Comments</u>
			· •
List the samples a method blanks c	ssociated with this meth	od blank.	

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits

Amount Above Contract Requirement

Comments

Site Name: Fran	ıklin	Laboratory Name:Mitkem
Reviewer: <u>R.P</u>	etrella	Date of Review:6/19/06
Fraction: VOA	\	-
Site spee	ific QC was not provide	d
XI. Matrix Sp	ike/Matrix Spike Duplicati	on Summary
Sample ID:		Matrix:
Did the MS/MS) recovery data meet the	contract recommended requirements ?
		Yes
lf No, please not Blank spike was	e below. analyzed and all recoveri	es were within limits
	·	
	· · · · · ·	

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review:6/19/06
I. Data Deliverable Requirements	
A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: E0660 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 5/22/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	<u>Received</u>	Extracted	Analyzed	Exceeded?
EW-2	5/23/06		5/25/06	No
AS-1*	5/23/06	·	5/25/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V5G7010	YES	INITIAL
2. V5G7200	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

IV. Initial Calibration Summary (GC/MS)

Date of Calibration: 5/15/06

A. Standard Data Files

V5G7012
V5G7016
V5G7011
V5G7015
V5G7014

Conc:	10
Conc:	20
Conc:	50
Conc:	100
Conc:	200

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments:

♦0020\E0660 VALIDATION FORM.DOC\4

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: <u>R.Petrella</u>	Date of Review:6/19/06
Fraction: VOA	Date of Calibration:5/15/06
IV. Initial Calibration Summary (continued	J)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if C. 1. Was the tune for the initial calibrat	
Yes	
2. Was the calibration conducted with	nin 12 hours of the tune
Yes	
Comments:	
 D. Overall assessment of the initial calibrati (list the associated samples) ok 	on:

♦0020\E0660 VALIDATION FORM.DOC\5

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review:6/19/06		
Fraction: VOA			
VI. Continuing Calibration Summary (GC	/MS)		
Date of Initial Calibration: 5/15/06			
Date of Continuing Calibration: 5/25	File ID:V5G7201		
A. 1. All SPCC met criteria ?	energia de la construcción de		
Yes			
Calculate a SPCC RRF			
Comments:			
2. All CCC met criteria ?			
Yes			
Calculate a CCC % D			
Comments:			
B. Overall assessment of Continuing (list associated samples) OK,	Calibration		

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 6/19/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review:6/19/06		
Fraction: VOA			
IX. Blank Summary			
Date/Time of Analysis: 5/25/06		File ID:VBLK5Y(V5G7202)	
CompoundConcentration1,2,4-1 ug/ltrichlorobenzene	<u>< CROL</u>	<u>Comments</u> Not detected in samples, no qualification of data required	

List the samples associated with this method blank.

method blanks clean

<u>.</u>.....

Site Name: Franklin

Laboratory Name:Mitkem

Date of Review:6/19/06

Reviewer: R.Petrella

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

<u>Sample</u>

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review:6/19/06
Fraction: VOA	
Site specific QC was not p	provided
XI. Matrix Spike/Matrix Spike D	uplication Summary
Sample ID:	Matrix:
Did the MS/MSD recovery data me	et the contract recommended requirements ?
• • •	Yes
If No, please note below.	
Blank spike was analyzed and all r	ecoveries were within limits
· · · ·	

DATA VALIDATION - METALS

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella RP	Date of Review:6/19/06		
I. Data Deliverable Requirements			
A. Legible	Yes		
B. Paginated	Yes		
C. Arranged in order	Yes		
D. Consistent dates	Yes		
E. Case Narrative	Yes		
F. Chain-of-Custody Record	Yes		
G. Sample Data Complete	Yes		
H. Standard Date Complete	Yes		
I. Raw QC Data Complete	Yes		

Comments: E0672 – 7 water samples and one trip blank were collected and analyzed for VOA.

Samples were collected on 5/23/06

♦0020\E0672 VALIDATION FORM.DOC\1

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

II. Holding Times

<u>Sample I.D.</u> TRIP BLANK	Date <u>Received</u> 5/24/06	Date <u>Extracted</u>	Date <u>Analyzed</u> 5/25/06	Holding Time <u>Exceeded?</u> No
ASMW-6	5/24/06		5/25/06	No
ASMW-7	5/24/06		5/25/06	No
ASMW-4	5/24/06		5/25/06	No
ASMW-5*	5/24/06		5/25/06	No
ASMW-1	5/24/06	· .	5/25/06	No
ASMW-2	5/24/06		5/25/06	No
ASMW-3	5/24/06		5/25/06	No
* Run as				

MS/MSD

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V5G7010	YES	INITIAL
2. V5G7200	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		
	· .	

Site Name:	Franklin	Laboratory Name:Mi	tkem
Reviewer:	R.Petrella	Date of Review:6/	19/06
Fraction:	VOA		
IV. Initia	al Calibration Summary (GC/MS)		
Date of Ca	libration: <u>5/15/06</u>		
A.	Standard Data Files		
	Standard 1 ID: V5G7012	Conc:	10
۰,	Standard 2 ID: V5G7016	Conc:	20
	Standard 3 ID: V5G7011	Conc:	50
	Standard 4 ID: V5G7015	Conc:	100
	Standard 5 ID: V5G7014	Conc:	200
В.	1. All SPCC met Criteria ?		
	Yes		
	2. Calculate a SPCC average	RRF	
Corr	nments:		
			<u></u>
· •			

♦0020\E0672 VALIDATION FORM.DOC\4

Site Name:	Franklin	Laboratory Name: <u>Mitkem</u>	
Reviewer:	R.Petrella	Date of Review:6/19/06	
Fraction:	VOA	Date of Calibration: 5/15/06	
IV. Initia	I Calibration Summary (continued	l)	
2. <i>F</i>	All CCC met Criteria ?		
	Yes		
Comments:	······		
Protocol allo	ulate a CCC % RSD ows up to 4 %RSD to be >25% if /as the tune for the initial calibrati		
	Yes		
2. W	as the calibration conducted with	in 12 hours of the tune	
	Yes		
Comments:	·		
	assessment of the initial calibrati associated samples)	on:	
•			

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review:6/19/06
Fraction: VOA	
VI. Continuing Calibration Summary (GC	C/MS)
Date of Initial Calibration: 5/15/06	
Date of Continuing Calibration: 5/25	File ID:V5G7201
A. 1. All SPCC met criteria ?	
Yes	
Calculate a SPCC RRF	
Comments:	
2. All CCC met criteria ?	
Yes	
Calculate a CCC % D	
Comments:	
B. Overall assessment of Continuin (list associated samples)	g Calibration
OK,	

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 6/19/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin		Laboratory Nan	ne:Mitkem
Reviewer: R.Petrella		Date of Revie	ew:6/19/06
Fraction: VOA			
IX. Blank Sumn	nary		
Date/Time of Analy	/sis: <u>5/25/06</u>	F	ile ID:VBLK5Y(V5G7202)
Compound	Concentration	< <u>CROL</u>	Comments
1,2,4- trichlorobenzene	1 ug/l		Not detected in samples, no qualification of data required

List the samples associated with this method blank.

Trip blank contained MeCl2 at 1 ug/l, not detected in any of the samples

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:6/19/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review:6/19/06
Fraction: VOA	· · · · · · · · · · · · · · · · · · ·
XI. Matrix Spike/Matrix Spike Duplication	on Summary
Sample ID: ASMW-5	Matrix:water
Did the MS/MSD recovery data meet the c	ontract recommended requirements ?
	Yes
If No, please note below.	
Blank spike was analyzed and all recoverie	es were within limits

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: <u>R.Petrella</u>	Date of Review: <u>10/23/06</u>	
I. Data Deliverable Requirements		
A. Legible	Yes	
B. Paginated	Yes	
C. Arranged in order	Yes	
D. Consistent dates	Yes	
E. Case Narrative	Yes	
F. Chain-of-Custody Record	Yes	
G. Sample Data Complete	Yes	
H. Standard Date Complete	Yes	
I. Raw QC Data Complete	Yes	

Comments: E0731 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 6/05/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/23/06

II. Holding Times

	Date	Date	Date	Holding Time
Sample I.D.	<u>Received</u>	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	6/06/06		6/08/06	No
AS-1*	6/06/06		6/08/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:10/23/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V1H5750	YES	INITIAL
2. V1H5770	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		

Site Name:	Franklin		Laboratory Name:	litkem
Reviewer:	R.Petrella		Date of Review:1	0/23/06
Fraction:	VOA			
IV. Initia	I Calibration Su	ımmary (GC/MS)		
Date of Cal	ibration: 6/07/0	6		
Α.	Standard Data	Files		
	Standard 1 ID:	V1H5762	Conc	10
	Standard 2 ID:	V1H5766	Conc	20
	Standard 3 ID:	V1H5761	Conc	50
	Standard 4 ID:	V1H5765	Conc	100
	Standard 5 ID:	V1H5764	Conc	200

B. 1. All SPCC met Criteria ?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review:10/23/06
Fraction: VOA	Date of Calibration:6/07/06
IV. Initial Calibration Summary (continue	ed)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% C. 1. Was the tune for the initial calibra	
Yes	
2. Was the calibration conducted wi	thin 12 hours of the tune
Yes	
Comments:	
 D. Overall assessment of the initial calibra (list the associated samples) ok 	ition:

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review:10/23/06		
Fraction: VOA	· · · · · ·		
VI. Continuing Calibration Summary (G	C/MS)		
Date of Initial Calibration: 6/07/06	·		
Date of Continuing Calibration: 6/08	File ID:V1H5771		
A. 1. All SPCC met criteria ?			
Yes			
Calculate a SPCC RRF			
Comments:			
2. All CCC met criteria ?			
Yes			
Calculate a CCC % D			
Comments:			
B. Overall assessment of Continuir (list associated samples) OK,			

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/23/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin	Laboratory Name:	Mitkem
Reviewer:	R.Petrella	Date of Review:	10/23/06
Fraction:	VOA		
IX. Blan	k Summary		
Date/Time	of Analysis: 5/25/06	File	ID: <u>VBLK2W</u>
<u>Compound</u>	Concentration	< <u>CROL</u>	Comments

List the samples associated with this method blank.

method blanks clean

+0020\E0731 VALIDATION FORM.DOC\8

Site Name: Franklin Laborato

Laboratory Name: Mitkem

Reviewer: R.Petrella

Date of Review:10/23/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

<u>Sample</u>

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

<u>Comments</u>

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review:10/23/06	
Fraction: VOA Site specific QC was not provi	ded	
XI. Matrix Spike/Matrix Spike Duplication Summary		
Sample ID:	Matrix:	
Did the MS/MSD recovery data meet the contract recommended requirements ?		
	Yes	
If No, please note below.		
Blank spike was analyzed and all recoveries were within limits		

Site Name: Franklin	Laboratory	
Reviewer: R.Petrellap	_ Date of R	
I. Data Deliverable Requirements		
A. Legible	Yes	
B. Paginated	Yes	
C. Arranged in order	Yes	
D. Consistent dates	Yes	
E. Case Narrative	Yes	

F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: E0837 – 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 6/19/06

All metal QC met requirements

Laboratory Name:Mitkem

Date of Review:10/23/06

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:10/23/06

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II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	Analyzed	Exceeded?
EW-2	6/20/06		6/26/06	No
AS-1*	6/20/06		6/26/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Fraction: VOA

Date of Review: 10/23/06

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V2H5930	YES	INITIAL
2. V2H5950	YES	SAMPLES
3.		
4.		
5.		
6.		
7.		
8.		

Site Name:	Franklin		Laboratory Name:	Mitkem
Reviewer:	R.Petrella		Date of Review:	10/23/06
Fraction:	VOA			
IV. Initia	al Calibration Su	mmary (GC/MS)		
Date of Cal	libration: <u>6/25/0</u>	6		
A.	Standard Data I	Files		
	Standard 1 ID:	V2H5936	Con	c: <u>10</u>
	Standard 2 ID:	V2H5934	Con	c: <u>20</u>
	Standard 3 ID:	V2H5931	Con	c: <u>50</u>
	Standard 4 ID:	V2H5933	Con	c: <u>100</u>
	Standard 5 ID:	V2H5932	Con	c: 200
B.	1. All SPCC m	net Criteria ?		

Yes

2. Calculate a SPCC average RRF

Comments:

3. A state of the second se Second s second sec

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review:10/23/06
Fraction: VOA	Date of Calibration: 6/25/06
IV. Initial Calibration Summary (continu	ued)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25%	o if <40%
C. 1. Was the tune for the initial calibr	ration acceptable ?
Yes	
2. Was the calibration conducted w	vithin 12 hours of the tune
Yes	
Comments:	
 D. Overall assessment of the initial calibr (list the associated samples) ok 	ation:

5

Site Name: Franklin	Laboratory Name:Mitkem			
Reviewer: R.Petrella	Date of Review:10/23/06			
Fraction: VOA	_			
VI. Continuing Calibration Summary (GC/MS)			
Date of Initial Calibration:6/25/06				
Date of Continuing Calibration: 6/26	File ID:V2H5951			
A. 1. All SPCC met criteria ?				
Ye	98			
Calculate a SPCC RRF				
Comments:				
2. All CCC met criteria ?				
Ye	es			
Calculate a CCC % D				
Comments:				
B. Overall assessment of Continu (list associated samples) OK,				

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t the second
Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/23/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin	Laborator	y Name: <u>Mitkem</u>	l
Reviewer:	R.Petrella	Date of	Review: <u>10/23/0</u>)6
Fraction:	VOA			
IX. Blanl	< Summary			
Date/Time of	of Analysis: 5/25/06		File ID: <u>VBI</u>	_K2W
<u>Compound</u>	<u>Concentra</u>	tion <u>< CR</u>	<u>DL</u>	<u>Comments</u>

List the samples associated with this method blank.

method blanks clean

♦0020\E0837 VALIDATION FORM.DOC\8

Site Name: Franklin Labora

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/23/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review: 10/23/06
Fraction: VOA Site specific QC was not provided	
XI. Matrix Spike/Matrix Spike Duplication	n Summary
Sample ID:	Matrix:
Did the MS/MSD recovery data meet the co	ontract recommended requirements ?
٢	/es
If No, please note below.	
Blank spike was analyzed and all recoverie	s were within limits
<u></u>	
	<u></u>

۰.

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review: 10/23/06	
I. Data Deliverable Requirements		
A. Legible	Yes	
B. Paginated	Yes	
C. Arranged in order	Yes	
D. Consistent dates	Yes	
E. Case Narrative	Yes	
F. Chain-of-Custody Record	Yes	
G. Sample Data Complete	Yes	
H. Standard Date Complete	Yes	
I. Raw QC Data Complete	Yes	

Comments: E0940– 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 7/06/06

All metal QC met requirements

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:10/23/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	<u>Analyzed</u>	Exceeded?
EW-2	7/7/06		7/10/06	No
AS-1*	7/7/06		7/10/06	No

*also run for pH, Fe & Mn

♦0020\E0940 VALIDATION FORM.DOC\2

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Fraction: VOA

Date of Review: 10/23/06

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V2H6180	YES	INITIAL
2. V2H6390	YES	SAMPLES
3. V2H6440	YES	BLANK
4.		
5.		
6.		
7		
8.		

Site Name:	Franklin		Laboratory Na	me: <u>Mit</u>	kem
Reviewer:	: R.Petrella		Date of Review:10/23/06		
Fraction:	VOA				
IV. Initia	al Calibration Su	Immary (GC/MS)			
Date of Ca	libration: <u>7/1/06</u>				
A.	Standard Data	Files			
	Standard 1 ID:	V2H6182		Conc:	10
	Standard 2 ID:	V2H6185		Conc:	20
	Standard 3 ID:	V2H6181		Conc:	50
	Standard 4 ID:	V2H6186		Conc:	100
	Standard 5 ID:	V2H6184	(Conc:	200
5					

B. 1. All SPCC met Criteria ?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name:Mitkem			
Reviewer: R.Petrella	Date of Review:10/23/06			
Fraction: VOA	Date of Calibration:7/1/06			
IV. Initial Calibration Summary (continu	ied)			
2. All CCC met Criteria ?				
Yes				
Comments:	· · · · · · · · · · · · · · · · · · ·			
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25%	if <40%			
C. 1. Was the tune for the initial calibration acceptable?				
Yes				
2. Was the calibration conducted within 12 hours of the tune				
Yes				
Comments:				
 D. Overall assessment of the initial calibra (list the associated samples) ok 	ation:			

ok

· · · · · ·

Site Name: Franklin	Laboratory Name:Mitkem			
Reviewer: R.Petrella	Date of Review: 10/23/06			
Fraction: VOA	-			
VI. Continuing Calibration Summary (C	GC/MS)			
Date of Initial Calibration: 7/1/06				
Date of Continuing Calibration: 7/10, 7/11	File ID:V2H6391, V2H6441			
A. 1. All SPCC met criteria ?				
Ye	S			
Calculate a SPCC RRF				
Comments:				
2. All CCC met criteria ?				
Ye	S			
Calculate a CCC % D				
Comments:				
B. Overall assessment of Continu (list associated samples) OK,				

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/23/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name: Franklin		Laboratory Name:Mitkem		
Reviewer: R.Petrella		Date of Review:10	/23/06	
Fraction: VOA				
IX. Blank Summary	1			
Date/Time of Analysis: 5/25/06		File ID:VBLK2W		
Compound	Concentration	< <u>CROL</u>	<u>Comments</u>	

List the samples associated with this method blank.

method blanks clean

♦0020\E0940 VALIDATION FORM.DOC\8

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/23/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

<u>Sample</u>

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name	: Franklin	Laboratory Name:Mitkem			
Reviewer:	R.Petrella	Date of Review:10/23/06			
	Fraction: VOA Site specific QC was not provided				
XI. Mat	rix Spike/Matrix Spike Duplication	n Summary			
Sample ID	:	Matrix:			
Did the MS	Did the MS/MSD recovery data meet the contract recommended requirements ?				
	Y	Yes			
lf No, pleas	se note below.				
Blank spike was analyzed and all recoveries were within limits					

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: <u>R.Petrella</u>	Date of Review:10/24/06	
I. Data Deliverable Requirements		
A. Legible	Yes	
B. Paginated	Yes	
C. Arranged in order	Yes	
D. Consistent dates	Yes	
E. Case Narrative	Yes	
F. Chain-of-Custody Record	Yes	
G. Sample Data Complete	Yes	
H. Standard Date Complete	Yes	
I. Raw QC Data Complete	Yes	

Comments: E1017– 2 water samples were collected and analyzed for VOA, one sample also run for pH, iron and manganese

Samples were collected on 7/17/06

.

All metal QC met requirements

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/24/06

II. Holding Times

	Date	Date	Date	Holding Time
<u>Sample I.D.</u>	Received	Extracted	Analyzed	Exceeded?
EW-2	7/18/06		7/20/06	No
AS-1*	7/18/06		7/20/06	No

*also run for pH, Fe & Mn

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:10/24/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V2H6180	YES	INITIAL
2. V2H6620	YES	SAMPLES
3. V6E4550	YES	INITIAL
4. V6E4816	YES	BLANKS
5.		
6.		
7.		
8.		

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:10/24/06

Fraction: VOA

IV. Initial Calibration Summary (GC/MS)

Date of Calibration: 7/1/06, 7/24

A. Standard Data Files

Standard 1 ID:	V2H6182, V6E4552	_ Conc:	10
Standard 2 ID:	V2H6185, V6E4572	_ Conc:	20
Standard 3 ID:	V2H6181, V6E4551	_ Conc:	50
Standard 4 ID:	V2H6186, V6E4555	Conc:	100
Standard 5 ID:	V2H6184, V6E4554	Conc:	200
	er		

B. 1. All SPCC met Criteria?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name:Mitkem		
Reviewer: R.Petrella	Date of Review:10/24/06		
Fraction: VOA	Date of Calibration:7/1/06, 7/24		
IV. Initial Calibration Summary (continued	1)		
2. All CCC met Criteria ?	X		
Yes			
Comments:			
Calculate a CCC % RSD Protocol allows up to 4 %RSD to be >25% if <40% C. 1. Was the tune for the initial calibration acceptable ?			
Yes			
2. Was the calibration conducted with	nin 12 hours of the tune		
Yes			
Comments:			
 D. Overall assessment of the initial calibrati (list the associated samples) ok 	on:		

Site Name: Franklin	Laboratory Name:Mitkem			
Reviewer: R.Petrella	Date of Review:10/24/06			
Fraction: VOA				
VI. Continuing Calibration Summary (G	C/MS)			
Date of Initial Calibration: 7/1/06, 7/24				
Date of Continuing Calibration: 7/20, 8/1	File ID:V2H6621, V6E4817			
A. 1. All SPCC met criteria ?				
Yes				
Calculate a SPCC RRF				
Comments:				
2. All CCC met criteria ?				
Yes				
Calculate a CCC % D	Calculate a CCC % D			
Comments:				
 B. Overall assessment of Continuin (list associated samples) 	g Calibration			
OK,				

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/24/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

<u>Sample</u>

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin	Laboratory Name:Mith	kem
Reviewer:	R.Petrella	Date of Review: <u>10/2</u>	24/06
Fraction:	VOA		
IX. Blan	k Summary		
Date/Time	of Analysis: 5/25/06	File ID:	VBLK2W
<u>Compound</u>	Concentration	< <u>CROL</u>	<u>Comments</u>

List the samples associated with this method blank.

method blanks clean

♦0020\E1017 VALIDATION FORM.DOC\8

Site Name: Franklin

Laboratory Name:Mitkem

Date of Review:10/24/06

Reviewer: R.Petrella

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

<u>Sample</u>

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

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1

Site Name:	Franklin	Laboratory Name:Mitkem			
Reviewer:	Reviewer: R.Petrella Date of Review:10/24/06				
Fraction: Site	Fraction: <u>VOA</u> Site specific QC was not provided				
	ix Spike/Matrix Spike Duplicatior	Summary			
Sample ID:	Sample ID: Matrix:				
Did the MS/MSD recovery data meet the contract recommended requirements ?					
Yes					
If No, please note below.					
Blank spike was analyzed and all recoveries were within limits					
·					

DATA VALIDATION – METALS

♦0020\E1017 VALIDATION FORM.DOC\11

Site Name: Franklin	Laboratory Name:Mitkem	
Reviewer: R.Petrella	Date of Review:10/24/06	
I. Data Deliverable Requirements		
A. Legible	Yes	
B. Paginated	Yes	
C. Arranged in order	Yes	
D. Consistent dates	Yes	
E. Case Narrative	Yes	
F. Chain-of-Custody Record	Yes	
G. Sample Data Complete	Yes	
H. Standard Date Complete	Yes	
I. Raw QC Data Complete	Yes	

Comments: E1347 – 7 water samples and one trip blank were collected and analyzed for VOA.

Samples were collected on 8/31/06

+0020\E1347 VALIDATION FORM.DOC\1

.

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:10/24/06

II. Holding Times

Sample I.D.	Date Received	Date Extracted	Date Analyzed	Holding Time Exceeded?
TRIP BLANK	9/1/06	<u></u>	9/3/06	No
ASMW-6	9/1/06		9/3/06	No
ASMW-7*	9/1/06		9/3/06	No
ASMW-4	9/1/06		9/3/06	No
ASMW-5	9/1/06		9/3/06	No
ASMW-1	9/1/06		9/3/06	No
ASMW-2	9/1/06		9/3/06	No
ASMW-3	9/1/06		9/3/06	No
* Run as MS/MSD				

♦0020\E1347 VALIDATION FORM.DOC\2

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review:10/24/06

Fraction: VOA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V1H8010	YES	INITIAL
2. V1H8280	YES	SAMPLES
3. V6E4550	YES	INITIAL
4. V6E6000	YES	BLANK
5.		
6.		
7.		
8.		

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: <u>R.Petrella</u>	Date of Review:10/24/06
Fraction: VOA	
IV. Initial Calibration Summary (GC/MS)	
Date of Calibration: <u>8/23/06, 7/24/06</u>	
A. Standard Data Files	
Standard 1 ID: V1H8013, V6E4	552 Conc: 10
Standard 2 ID: V1H8012, V6E4	572 Conc: 20
Standard 3 ID: V1H8017, V6E4	551 Conc: <u>50</u>
Standard 4 ID: V1H8016, V6E4	555 Conc: <u>100</u>
Standard 5 ID: V1H8015, V6E4	554 Conc: 200

B. 1. All SPCC met Criteria ?

Yes

2. Calculate a SPCC average RRF

Comments:

Site Name: Franklin	Laboratory Name: <u>Mitkem</u>
Reviewer: R.Petrella	Date of Review:10/24/06
Fraction: VOA	Date of Calibration:8/23/06, 7/24/06
IV. Initial Calibration Summary (continued)
2. All CCC met Criteria ?	
Yes	
Comments:	
Calculate a CCC % RSD	
Protocol allows up to 4 %RSD to be >25% if	<40%
C. 1. Was the tune for the initial calibration	on acceptable ?
Yes	
2. Was the calibration conducted with	in 12 hours of the tune
Yes	
Comments:	
D. Overall assessment of the initial calibration (list the associated samples)	on:

ok

Site Name: Franklin	Laboratory Name: Mitkem
Reviewer: R.Petrella	Date of Review:10/24/06
Fraction: VOA	
VI. Continuing Calibration Summary (GC	C/MS)
Date of Initial Calibration: 8/23/06, 7/24/06	
Date of Continuing Calibration: 9/3, 9/15	File ID:V1H8281,
A. 1. All SPCC met criteria ?	
Yes	
Calculate a SPCC RRF	
Comments:	
2. All CCC met criteria ?	
Yes	
Calculate a CCC % D	
Comments:	
 B. Overall assessment of Continuin (list associated samples) OK, 	-

Site Name: Franklin

Laboratory Name:Mitkem

Reviewer: R.Petrella

Date of Review: 10/24/06

Fraction: VOA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes

If No, please note below

Sample

Internal Standard Outside Limits Amount Above Contract Requirement

Comments

Site Name:	Franklin		Laboratory Na	ne: <u>Mitkem</u>	
Reviewer:	R.Petrella		Date of Revi	ew: <u>10/24/0</u>	6
Fraction:	VOA				
Meth	hod blanks	clean			
IX. Blan	k Summary				
Date/Time	of Analysis:			File ID:	······
Compound		<u>Concentration</u>	< <u>CROL</u>		<u>Comments</u>

List the samples associated with this method blank.

Trip blank contained MeCl2 at 2 ug/l, not detected in any of the samples

♦0020\E1347 VALIDATION FORM.DOC\8

Site Name: Franklin Laboratory Name: Mitkem

Reviewer: <u>R.Petrella</u> Date

Date of Review:10/24/06

Fraction: VOA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

YES

Sample

 $\tau_{1,1}(s) = (s-s)$

Surrogate Compound Outside Recovery Limits Amount Above Contract Requirement

Comments

Site Name: Franklin	Laboratory Name:Mitkem
Reviewer: R.Petrella	Date of Review:10/24/06
Fraction: VOA	
XI. Matrix Spike/Matrix Spike Duplication	n Summary
Sample ID: ASMW-7	Matrix:water
Did the MS/MSD recovery data meet the co	entract recommended requirements ?
Y	/es
If No, please note below.	
Blank spike was analyzed and all recoveries	s were within limits

Data Validation Check List 381 SDG: Number of Samples: Analysis: VOA VOA **Contractual Compliance** Tunes: Surrogate Recoveries Blanks 7] **Initial Calibrations** 4/ OL **Continuing Calibrations** Spikes **Duplicates** LCS-OK_ I met (Fe, Ma) PH Laboratory Control Samples Comments/Notes: VTSR 9 Q M Q /ι No problems with analysis provided no site specific DC aua cts-NK

Franklin

Franklin

•	Data validat	Ion Check List		
SDG: Number of Samples: Analysis:	E1463 2- VOA, Fe, Nu	pH		
Contractual Compliance	VOA.	SVET		
Tunes:	OK			
Surrogate Recoveries	OU			
Blanks	<u>clean</u>	OK		
Initial Calibrations	9/25 OK	OK		
Continuing Calibrations	1/27 OU	OIL	~	
Spikes		·		
Duplicates				
Laboratory Control Samples	Blankspille	OK		
Comments/Notes: VTSR 9/26	EH-1, AS-1			
VOA run 9/2	1 met	- 9/27		
No problems with analysis	/ /	-		
	6 0 0	andod		
No site spec	anc oc	sprided	2	
area ets- ok				
· · · ·				
			-	
				,
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
		``````````````````````````````````````		
				<u>.</u>

Franklen

	Data Validation Check List	
SDG: Number of Samples: Analysis:	EISIL ZZ VOA, Fe, Ma, plf	
Contractual Compliance	VOA Wetals	
Tunes:	ph /	
Surrogate Recoveries	OK _	
Blanks	clean oh	
Initial Calibrations	1980h Oll	
Continuing Calibrations	19/8 ON M	
Spikes		
Duplicates		
Laboratory Control Samples	Blackspille OU	
Comments/Notes: VTSR 10/3	AS-1, EN-1 NOTA 1018 Met 1015	
No problems with analysis		
Site specific	OC not provided	
area cto oll		
		·
••••••••••••••••••••••••••••••••••••••		

Franklen

Data Validation Check List
SDG: Number of Samples: Analysis: EIS99 Z VDA, Fe, Ma, PH
Contractual Compliance VOA Hot
Tunes: OH
Surrogate Recoveries
Blanks Clean OK
Initial Calibrations 10/19 0K OK
Continuing Calibrations 10/19 QUC OK
Spikes
Duplicates
Laboratory Control Samples
Comments/Notes: AS-1, EW-1
VTSR 19/17/06 VOA 10/20 Wet 10/10
No problems with analysis
pite specific DC not provided
area ets ok

Franklei

Data	Validation	Check List
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	Data Valida	tion Check List	
SDG: Number of Samples: Analysis:	E1685 Voz, Fe, M	n gtt-	 
Contractual Compliance	VOA.	Net	
Tunes:	OK		
Surrogate Recoveries	Ol		
Blanks	<u>Clean</u>	- OR	
Initial Calibrations	10/8 ph	OK	
Continuing Calibrations	11/2 On	OK	
Spikes			
Duplicates			
Laboratory Control Samples	Blank Spike of	OK	
Comments/Notes: VTSP2 10/31	AS-1, EW-1 106 VOA	11/2/06	 
·	Me	+ 1/1/06	 
No problems with analysis		· •	 
S. O. K. O. L.	net ono	undad	 
		iller .	
-		. ·	
	×		

Franklen Cleaners

SDG: Number of Samples: Analysis: $E_{1782}$ $Z_{2}$ VoA, Fe, Mn, pH
Contractual Compliance VDA Met-
Tunes: Oh
Surrogate Recoveries
Blanks REJugH OK
Initial Calibrations 1/12 OK OK
Continuing Calibrations "116 DK
Spikes
Duplicates
Laboratory Control Samples Blank Spike Ob
Comments/Notes: $\underline{\mathcal{E}}W - I, AS - I$ $\overline{\mathcal{I}}T \leq R II I I I I I I I I I I I I I I I I $
Met 1/10
No problems with analysis
PCE delected in VBUK5A at ough also
delect in pample at 18 ugle. Alter since
hudenaalle and tration of Mallta
historically qualification of Moults

Franklin Cleaxers

G: EI 834 Imber of Samples: Twaters + TB also: VoA pes: OM regate Recoveries OK intractual Compliance V oA pes: OM regate Recoveries OK intractions II/12 al Calibrations II/12 itinuing Calibrations II/12 itinuing Calibrations II/12 ies OK ies OK itinuing Calibrations II/12 ies OK ies OK ies OK interes OK ies OK i	£	Data Validation Check List
Intractual Compliance V of Intractual Compliance V of nes: <u>OK</u> irogate Recoveries <u>OK</u> al Calibrations <u>11/12</u> itinuing Calibrations <u>11/29</u> itinuing Calibrations <u>11/29</u> itinuing Calibrations <u>11/29</u> ies <u>OK</u> ies <u>OK</u> iratory Control Samples <u>OK</u> irratory Control Samples <u>OK</u> irratory Control Samples <u>OK</u> irratory Control Samples <u>OK</u> iss	- <del></del>	F1834
Alysis:		
nes: <u>OK</u> rrogate Recoveries <u>OK</u> nks <u>X</u> al Calibrations <u>11/12</u> tinuing Calibrations <u>11/29</u> tes <u>OK</u> les <u>OK</u> icates <u>OK</u> icates <u>OK</u> icates <u>OK</u> iratory Control Samples <u>OK</u> ments/Notes: <u>TELPBLack</u> , <u>ASMW-6</u> , <u>ASMW-7</u> , <u>ASMW-5</u> , <u>SMW-4</u> , <u>ASMW1</u> , <u>ASMW-6</u> , <u>ASMW-7</u> , <u>ASMW-5</u> , <u>SMW-4</u> , <u>ASMW1</u> , <u>ASMW-3</u> , <u>ASMW-3</u> . <u>X</u> <u>RUM</u> <u>ASMW1</u> , <u>ASMW-3</u> , <u>ASMW-3</u> . <u>X</u> <u>RUM</u> <u>ASMW1</u> , <u>ASMW-3</u> . <u>X</u> <u>RUM</u> <u>ASMM5D</u> problems with analysis <u>SR</u> <u>IP</u> [28], <u>Analyzed</u> <u>1129</u> <u>Lleufform</u> <u>detocted</u> <u>m</u> <u>Yrp</u> <u>Unalf</u> <u>Mot</u> <u>m</u> <u>Samples</u> <u>BUK5K</u> <u>I,24</u> <u>Urichleublegene</u> <u>Bueff</u> _ <u>not</u> <u>m</u> <u>Samples</u> <u>Ata</u> <u>Mot</u> <u>Leguised</u> .	alysis:	VOA
nes: <u>OK</u> rrogate Recoveries <u>OK</u> nks <u>X</u> al Calibrations <u>11/12</u> tinuing Calibrations <u>11/29</u> tes <u>OK</u> les <u>OK</u> icates <u>OK</u> icates <u>OK</u> icates <u>OK</u> iratory Control Samples <u>OK</u> ments/Notes: <u>TELPBLack</u> , <u>ASMW-6</u> , <u>ASMW-7</u> , <u>ASMW-5</u> , <u>SMW-4</u> , <u>ASMW1</u> , <u>ASMW-6</u> , <u>ASMW-7</u> , <u>ASMW-5</u> , <u>SMW-4</u> , <u>ASMW1</u> , <u>ASMW-3</u> , <u>ASMW-3</u> . <u>X</u> <u>Rum</u> <u>ASMW1</u> , <u>ASMW-3</u> , <u>ASMW-3</u> . <u>X</u> <u>Rum</u> <u>ASMM51</u> problems with analysis <u>SR</u> <u>10/28</u> , <u>Analyzed "I29</u> <u>Lleufform</u> <u>detocted</u> <u>m</u> <u>Yrp</u> <u>Unnkat</u> <u>Iuall</u> <u>mot</u> <u>m</u> <u>Sambles</u> <u>BLK-5K</u> <u>1,24</u> <u>Urichleublegene</u> <u>Bueff</u> _ <u>not</u> <u>m</u> <u>Sambles</u> <u>Ata</u> <u>not</u> <u>Leguried</u> .	intractual Compliance	Mad
rrogate Recoveries nks al Calibrations 11/2 itinuing Calibrations 11/2 12/4 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/2 11/		
nks <u>X</u> al Calibrations 11/2 tinuing Calibrations 11/29 ies <u>OK</u> ies <u>OK</u> icates <u>OK</u> iratory Control Samples <u>OK</u> ments/Notes: <u>TELPBLANK</u> , <u>ASMW-6</u> , <u>ASMW-7</u> , <u>ASMW-5</u> , <u>SMW-4</u> , <u>ASMW1</u> , <u>ASMW-8</u> , <u>ASMW-7</u> , <u>ASMW-5</u> , <u>SMW-4</u> , <u>ASMW1</u> , <u>ASMW-3</u> , <u>ASMW-3</u> . <u>* Run</u> <u>As MSIMSI</u> problems with analysis <u>SR 11/28</u> , <u>Analyzed "lag</u> <u>Leufform detected m Yrip Wank at Inall</u> <u>Mot m Samples</u> <u>BLK5K 1,24 Yrichlowbenene anall -</u> <u>not detected in Namples</u> <u>Gualfrication of</u> <u>ata not required</u> .	nes:	
al Calibrations 11/2 tinuing Calibrations 11/29 ies <u>Ok</u> icates <u>Ok</u> iratory Control Samples <u>Ok</u> ments/Notes: <u>TELPBLANK</u> , <u>ASMW-6</u> , <u>ASMW-7</u> , <u>ASNKW-5</u> , <u>S MW-4</u> , <u>ASMW01</u> , <u>ASMW-3</u> , <u>ASMW-3</u> . <u>* Run as mSIMSD</u> problems with analysis <u>SR 11/28</u> , <u>Analyzed "129</u> <u>Lougfoins detected n 4rup blank at 1uall</u> <u>not n samples</u> <u>BLK5K 1,24 4richloubenere augli -</u> <u>not detected in samples gualification of</u> <u>ata not required</u> .	rogate Recoveries	OK
tinuing Calibrations 11/29 ies OK icates OK iratory Control Samples OK ments/Notes: TELPBLANK, ASMW-6, ASMW-7, ASNW-5, SMW-4,* ASMW-1 ASMW-3, ASMW-3. * Run as MSMSD problems with analysis SR 10/28, Analyzed "/29 longform detocted n Unp blank at Jught Not m sangles BLK5K 1,2,4 Urichlowbergene augh - not detocted in yamples qualification of ato Not requesed.	nks	<u>×</u>
es <u>Ok</u> licates <u>Ok</u> ments/Notes: <u>TRIPBLANK</u> , <u>ASMW-6</u> , <u>ASMW-7</u> , <u>ASMW-5</u> , <u>SMW-4</u> , <u>ASMW1</u> , <u>ASMW-3</u> , <u>ASMW-3</u> . <u>* Run as mSIM-3</u> , <u>ASMW-3</u> . <u>* Run as mSIM-5</u> ) problems with analysis <u>SR IP128</u> , <u>Analyzed "129</u> <u>Lougfoins detected n trip blank at Ingli</u> <u>not n Sangles</u> <u>BUK5F 1,24 Urichlowbenene 2 well</u> - <u>not detected in Sangles</u> <u>ata not required</u> .	al Calibrations	11 <u>12</u>
icates ratory Control Samples Oll ments/Notes: <u>TRIPBLANK</u> , ASMW-6, ASMW-7, ASMW-5, SMW-4,* ASMW-1, ASMW-3, ASMW-3. * Run as MSMSD problems with analysis SR 10/28, Analyzed "29 lleufform detocted m Grup blank at Inall Mot m Samples BLK5K 1,24 Gruphleublenene angle - not detected in Samples Gualifrication of ata Not required.	tinuing Calibrations	11/29
ratory Control Samples Oll ments/Notes: <u>TELPBLANK</u> , <u>ASMW-6</u> , <u>ASMW-7</u> , <u>ASMW-5</u> , <u>SMW-4</u> ,* <u>ASMW1</u> , <u>ASMW-3</u> , <u>ASMW-3</u> . * <u>Run as mSIMSD</u> problems with analysis <u>SR 10/28</u> , <u>Analyzed "/29</u> <u>leugfoint detected m Unp blank at Inall</u> <u>mot m samples</u> <u>BLK5K 1,24</u> <u>Unchlowbenene anell</u> <u>not detected in samples</u> <u>gualification of</u> <u>ata</u> <u>not required</u> .	es	<u>OK</u>
ments/Notes: TRIPPlank, ASMW-6, ASMW-7, ASMW-5, SMW-4,* ASMWI, ASMW-3, ASMW-3. * Run as mSMSD problems with analysis SR 10/28, Analyzed "/29 leufoin detected n trip blank at Jug/ not n sangles BLK5K 1,24 trichlowbenere 2 well - not detected in samples qualification of ato not required.	licates	
* Run as michmist problems with analysis SR 18/28, Analyzed #/29 Usufform detected in trip blank at Inall not in samples BLK5K 1,24 trichlowbenene angle - not detected in samples qualification of ato not requesed.		Oll
* Run as michmist problems with analysis SR 18/28, Analyzed #/29 Usufform detected in trip blank at Inall not in samples BLK5K 1,24 trichlowbenene angle - not detected in samples qualification of ato not requesed.	ments/Notes:	TRIPBLACK, ASMW-6, ASMW-7, ASMW-5,
problems with analysis SR 10/28, Analyzed "29 leufoin detected n trip black at Inall not n sangles BLK5K 1,2,4 trichlowbeyene angle- not detected in samples- qualification of late not required.	- 18	
SR 10/28, Analyzed "29 Loufoin detected n trip black at Jug/ not n sangles BIK5K 1,24 trichlowbenene augh - not detected in samples qualification of ata not requesed.	* Run a	n smsl)
BIK5K 1,24 Frichleiobenere auell- not detected in samples gualification of ata not requesed.		· · · · · · · · · · · · · · · · · · ·
ata not requered.	SR 10/28	Analyzed "129
ata not requered.		
ata not requered.	loufour a	detected in this black at jugt
ata not requered.		not a sandle
ata not requered.	BUK5K 1,~	4 frichtbiobenere augh -
ata not requered.	not detect	an samples qualityration of
· · · · · · · · · · · · · · · · · · ·	ata not	required.
reacts-ok	- /	
	rea As - a	IC.

Flanklin Cleaners

	Data Validation Check List	
SDG: Number of Samples: Analysis:	E1839 Z VDA, Fe, Ma, PH	
Contractual Compliance	VoA Net	
Tunes:	OK -	
Surrogate Recoveries	OK _	
Blanks	* Oh	
Initial Calibrations	1/12 OK OK	
Continuing Calibrations	11/29 OK	
Spikes	- OKAS-1 DL AS-1	
Duplicates	- Oh #S-1	
Laboratory Control Samples	Spike of OK	
Comments/Notes: VTSR 11/29	AS-1, EN-1 VOANUN 11/29 Nut 12/1	
No problems with analysis		
Sete specific	DC not provided	
aren cto ok		
+ 1, 2, 4- tree but not de	chloudeniere detected a tected in samples, th of the data is not	t Quall erefore
qualification	- of the data is rist,	sequered_
······		······
••••		
	· · · · · · · · · · · · · · · · · · ·	

♦0020\E0602 VALIDATION FORM.DOC\11

F0279

SDG: Number of Samples: Analysis:	Franklin Cleaners 2 Natus Voz, I Sample for Metals
Contractual Compliance	
Tunes:	<u>VOC</u> <u>Metals</u>
Surrogate Recoveries	OK
Blanks	clean on
Initial Calibrations	OK OK
Continuing Calibrations	OK OK
Spikes	Blank-ok
Duplicates	
Laboratory Control Samples	OK
Comments/Notes:	AS-1, EN-1
Collection 3/5	VTSR 3/4 VOA RUN 3/12
	metals Run 3/23
NO PROBLEMS	With sample results.
NO PROBLEMS	With some results.
NO PROBLEMS	With some results.
NO PROBLEMS	With some results.

F0376

SDG: Number of Samples: Analysis:	Franklin Cleaners <u>2 Waters</u> Vora. I sample for metals
Contractual Compliance	
Tunes:	<u>Voc</u> <u>Metals</u>
Surrogate Recoveries	OR _
Blanks	<u>*</u> <u>OK</u>
Initial Calibrations	<u>ok</u> <u>ok</u>
Continuing Calibrations	OK OK
Spikes	Blark-OK OK
Duplicates	<u> </u>
Laboratory Control Samples	OK
Comments/Notes: <u>3</u> ]27, Metals	<u>collected 3/23 VTSR 3/24 - Vort Renn</u> 4/3
* Mells at	Zugh - not detected in samples
AS-1 Runas	Jup/spike for metals oxly
AS-1 Runas	spike for metals oxly
AS-1 Runas	rup/spike for metals oxly
AS-1 Runas	spike for metals oxly
AS-1 Run as	spike for metals oxly
A5-1 Run as (	spike for metals only
AS-1 Run as (	spike for metals oxly
A5-1 Run as (	dup/spike for metals oxly
AS-1 Run as (	tup/spike for metals oxly
AS-1 Run as (	dup/spike for metals only

F0421

SDG: Number of Samples: Analysis:	Franklin Cleaners Z. Waters NoA, I for metals.
Contractual Compliance	
Tunes:	<u>VOC</u> <u>Metals</u>
Surrogate Recoveries	OK
Blanks	OK ON
Initial Calibrations	OK OK
Continuing Calibrations	OK OH
Spikes	Blank
Duplicates	
Laboratory Control Samples	<u> </u>
Comments/Notes:	Collected 4/3 VTSR 4/4
<b>k</b>	15A Run 4/9 metals 4/6
No Droblenco	
DE PIDERO NO	
·	
· · · · · · · · · · · · · · · · · · ·	

F0466

SDG: Number of Samples: Analysis:	Franklin Cleaners Z Samples Vora, Met
Contractual Compliance	
Tunes:	<u>VOC</u> <u>Metals</u>
Surrogate Recoveries	OK
Blanks	OK OK
Initial Calibrations	OR ON
Continuing Calibrations	OR OR
Spikes	blank -
Duplicates	
Laboratory Control Samples	OK
Comments/Notes:	collected 4/16, VTSR 4/17 Run 4/18-104
No problencs	

	Data Validation Check List
SDG: Number of Samples: Analysis:	Franklin Cleaners 7 Waters VDA
Contractual Compliance	
Tunes:	<u>VOC</u> <u>Metals</u>
Surrogate Recoveries	OK
Blanks	*
Initial Calibrations	OK al
Continuing Calibrations	on exp
Spikes	OK 100
Duplicates	on 1
Laboratory Control Samples	
Comments/Notes: ASMW - 5	Collected 5/17 VTSR 5/18 Run 5/21,5/22 Run as MS/MSD
area ets o	$\mathcal{I}_{\mathcal{L}}$
FVBUK5I	1, 2, 4 TRICH 1010 benzene at Dugte - not detected
No PRIBLEMS	FOUND TO Sample results.

	Data Validation Check List
SDG: Number of Samples: Analysis:	Franklin Cleaners Zwatys Vora, Metals
Contractual Compliance	
Tunes:	<u>VOC</u> <u>Metals</u>
Surrogate Recoveries	Ok _
Blanks	* ON
Initial Calibrations	OK OK
Continuing Calibrations	OK ON
Spikes	black
Duplicates	
Laboratory Control Samples	OK
Comments/Notes: Collected 5/29	AS-1, EW-1 VTSR 5/31 run 6/2 NOA 6/5 Wet
* - method b	larch contained TCE at Quall-
not in Pa	angles - qualification of data
That requires	VBLK5I-Contained 1,2,4-Fricklowbenzene
at dugl -	not detected in paniples.
/	
	·
C	

SDG: Number of Samples: Analysis:	Franklin Cleaners 2 Warters Von, metals
Contractual Compliance	
Tunes:	VOC <u>Metals</u>
Surrogate Recoveries	DK _
Blanks	<u>clean on</u>
Initial Calibrations	DR OR
Continuing Calibrations	an on
Spikes	blank _
Duplicates	
Laboratory Control Samples	Oh
Comments/Notes:	culated 5/16 VTSR 5/17 VOA 5/24
	Net 5/22
AS-1 mu	als- Iron (220 ug/l result high-compared to
	have the the
	historical results -
••••••••••••••••••••••••••••••••••••••	Mistillal results -
	Mistillal risults -
	Mistillal risults -
	- Mustulal risults -
	Mostulal fisults -

SDG: Number of Samples: Analysis:	Franklin Cleaners 2520000000 VOA, Fe,	Mn, stt	
Contractual Compliance	VOO	<b>M</b> 1	
Tunes:	Voc	Metals	
Surrogate Recoveries	OK		
Blanks	ON	Of	
Initial Calibrations	6/15 OK	OK	
Continuing Calibrations	6/15 ON	OK	
Spikes	Blank		
Duplicates			
Laboratory Control Samples	ol	oK	
Comments/Notes:	AS-1, EN-1	, nalinid	latis Non
June 14	, FIR OIL	analyza	4113 VOH
•		Ũ	6/19 Not
area cts-de	·····		6/19 net
			6/19 Net
No Problems	noted.		6/19 Net
			6/19 Net
			6/19 Net-
			6/19 Net-
			6/19 Net
			6/19 Net.
			6/19 Net
			6/19 Net
			6/19 Net
			6/19 Met

F0888

SDG:	Franklin Cleaners		_
Number of Samples:	2 Waters	~#	_
Analysis:	VOA, Fe, Mu		
Contractual Compliance			
Tunes:		<u>Metals</u>	
Surrogate Recoveries	<u>ok</u>		
Blanks	OK	<u>DK</u>	
	30 OK	ol	
Continuing Calibrations	30 <u>0h</u>	ON	
Spikes	Blank OK		
Duplicates	$\leq$		
Laboratory Control Samples	<u>ok</u>	OK	
Comments/Notes:	AS-1, ZW-1		
collected 6/1	0. VTSR 6/2	7 VOA ru	n 6/30
	)	mot	7/3
		Met	ין ב'
initial cal	- 64	met	י_ַכַּןר
initial cal	- 0h_	met	7/2
			ר
initial cal No problems	- OK_ Found with	Met Sample resu	ר
			ר
			ר
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SDG: Number of Samples: Analysis:	Franklin Cleaners 2 Wouleus Vona, Fe, NUM	-
Contractual Compliance		
Tunes:	VOC <u>Metals</u>	
Surrogate Recoveries	OK _	
Blanks	OK OK	
Initial Calibrations	ok <u>ok</u>	
Continuing Calibrations	Oh ok	
Spikes	Blank	
Duplicates		
Laboratory Control Samples	OR OK	
Comments/Notes:	AS-1, SW-1 7/10 NTSP 7/11 VM 7/12	-
	Met 7/18	-
area cts OK		-
no pmblem	s found in Sande results	*
VID JYDDEVN	STOURARY Sange results	-
		-
		-
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		-
		_
		_

SDG: Number of Samples: Analysis:	Franklin Cleaners <u>2 Noters</u> Vora, Fe, Ma
Contractual Compliance	
Tunes:	VOC <u>Metals</u>
Surrogate Recoveries	OK
Blanks	clear or
Initial Calibrations	OR OK
Continuing Calibrations	oh oh
Spikes	Blank Oh
Duplicates	OK
Laboratory Control Samples	OK ON
Comments/Notes:	AS-1, EN-1 collected 7/27
	VTSR 7130 VOA 811
Cooler rec'd	at 25° - Saniplis vieri
collected on	Friday but do to Fed &x Issues
were not del	
comparable	to other Rounds- Qualityration of data
<u>unia G 5 Ok</u>	U (s not required.

F1048

SDG:Franklin CleanersNumber of Samples:Image: Samples plus hip blankAnalysis:Vocs only	
Contractual Compliance	
Tunes: <u>VOC</u> <u>Metals</u>	
Surrogate Recoveries	
Blanks OH	
Initial Calibrations $8/18 - 0/14$	
Continuing Calibrations 8/200/C, 8/21	
Spikes <u>OK</u>	
Duplicates	
Laboratory Control Samples	
Comments/Notes: $ASMW-1 \rightarrow ASMW-7, TB-1$	
Collected 8/14	
VTSR 8/15	
Analipid 8/20, 8/21	
ASMW-7 runas MS/MSI)	
* Surrogate recoveries for ASMN-2 were	
outside oc limits, sample was reren	
with similar fisults. Data from	
ential analys should be used for environmental assessment purposes.	<u></u>
In - MARTIN BUILDINER JULIUS	
TB- clean	

# **Data Validation Check List**

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SDG: Number of Samples: Analysis:	Franklin Cleaners 2 Sanyples VoA, Fe, Mn, DH	
Contractual Compliance		
Tunes:	VOC <u>Metals</u>	
Surrogate Recoveries	OK	
Blanks	<u>clean</u> <u>ok</u>	
Initial Calibrations	8/16 OK OK	
Continuing Calibrations	8/24 OK OK	
Spikes	Biank Spike OK	
Duplicates	<u> </u>	
Laboratory Control Samples	OK	
Comments/Notes:	AS-1, EW-1 Collected	8/23 VTSR 8/24
	VOA-RULE 8/24 Z H.T OK	
VOA area Cts	<u>nut 8/28 J</u> 5 OK	
no problems	found with sample re	pults

SDG:	Franklin Cleaners			
Number of Samples: Analysis:	3 Naters	IE	ex Mn	
Analysis.	3-104	Te		
Contractual Compliance	2000			METALO
Tunes:	<u>voc</u>			METALS
Surrogate Recoveries	OK			
Blanks	ok			<u>Ok</u>
Initial Calibrations	916			Ok
Continuing Calibrations	916			ok
Spikes				
Duplicates				
Laboratory Control Samples	OK			OK
Comments/Notes:	Collected	915	VTSR 916	<u>Run 9</u> 7
area cts c	K			
<u> </u>				
	·····			
<b>50</b> • • • • • • • • • • • • • • • • • • •				

F1367

SDG: Number of Samples: Analysis:	Franklin Cleaners 3 Naters VOC 1 for FetMn	
Contractual Compliance	)	
Tunes:	<u>voc</u> OK	METALS
Surrogate Recoveries	OK	
Blanks	Clean	OK
Initial Calibrations	<u>9/23 oll</u>	Oll
Continuing Calibrations	9/2301	ON
Spikes	Blank	
Duplicates		
Laboratory Control Samples	OK	oK
Comments/Notes:	AS-1, EW-1, EW-2 VTSR 9122 Run 91	<u>al</u>
ruea ets	oK	
······		
•		

SDG: Number of Samples: Analysis:	Franklin Cleaners <u>3 Wlater</u> VoA , Fet Mn	
Contractual Compliance	NOO	
Tunes:	<u>vac</u>	METALS
Surrogate Recoveries	OK	
Blanks	Clean	OK
Initial Calibrations	1090n	OK
Continuing Calibrations	10/25 OK	Ol
Spikes	Blank	
Duplicates		
Laboratory Control Samples		OL
Comments/Notes:	Collected 10/21 VTSR 10/23	Run
	1025	
area count	o) OK	
ho problem	s rated	
•		
<b>.</b> .		

SDG:	Franklin Cleaners	
Number of Samples: Analysis:	300A Waters VOA, Fer MM	
	VOFF, PET TICH	<u> </u>
Contractual Compliance	VOC	METALS
Tunes:	OK	
Surrogate Recoveries	OL	
Blanks	lean	_OK_
Initial Calibrations	1019	On
Continuing Calibrations	113	OR
Spikes		
Duplicates		
Laboratory Control Samples	OK	Ou
Comments/Notes:	collected 10/31, VTSR 11/1	Run 11/3
		•
NO Peopler	ns noted -	

F1659

SDG: Number of Samples: Analysis:	Franklin Cleaners <u>3 VOA</u> VDA FertMA	
Contractual Compliance	, Vool	
Tunes:		METALS
Surrogate Recoveries	<u>ok</u>	
Blanks	* tetrachlosoethere at Jug11	OK
Initial Calibrations	10/9 OK Sugir	OK
Continuing Calibrations	11150K	OK
Spikes	Blank Spike ok	
Duplicates		
Laboratory Control Samples	OV	OK
Comments/Notes:	collected "12, VTSR 11/13 R	'un "115

SDG: Number of Samples: Analysis:	Franklin Cleaners 3 Nater VOA FerMn (1 Sample	
Contractual Compliance		
Tunes:	Voc	METALS
Surrogate Recoveries	OK	
Blanks	<u>## Clean</u>	OK
Initial Calibrations	1019	OK
Continuing Calibrations	11/28-0K	OK-
Spikes		
Duplicates		
Laboratory Control Samples	OR	ol
Comments/Notes:	Collected "126, VTSR 11/27	
	Sur 1/28	
alla cts	OK net 12/3	
No problemas 1	noted !	
<b></b>		
	· · · · · · · · · · · · · · · · · · ·	
		<u> </u>

SDG:	Franklin Cleaners			
Number of Samples: Analysis:	<u>3</u> F1823	12/10/	07 samples	
Contractual Compliance	VOÇ	Metals	pH	
Tunes:				
Surrogate Recoveries				
Blanks	<u> </u>	<u> </u>		
Initial Calibrations				
Continuing Calibrations				
Spikes				
Duplicates				
Laboratory Control Samples	<u> </u>			
			holding times	
	al standard			
II Get H	erence che	asaup		
		·····	·····	24 (F
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SDG:	Franklin Cleaners	
Number of Samples: Analysis:	<u>3</u> F1934 12/27/07 samples	
Contractual Compliance	VOC Metals PH	
Tunes:		
Surrogate Recoveries		
Blanks	V see note	
Initial Calibrations		
Continuing Calibrations		
Spikes		
Duplicates		
Laboratory Control Samples		
Comments/Notes:	samples analyzed within holding times	ı
	standards acceptable	ı
în-	terference checks acceptable	ı
mar	ngranese detected in method blank but not san	nple
		•
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SDG:	Franklin Cleaners			
Number of Samples: Analysis:	<u>3</u> 60020	1/	7/08 samples	
Contractual Compliance	Voo	Matala		
Tunes:		Metals	PH	
Surrogate Recoveries	<u> </u>			
Blanks	<u> </u>	<u> </u>		
Initial Calibrations	<u> </u>			
Continuing Calibrations	<u> </u>			
Spikes		<u> </u>		
Duplicates			$\checkmark$	
Laboratory Control Samples	<u> </u>	$\checkmark$		
Comments/Notes:	Samples	analex	ed within	holding times
	èrence che			
		· · · · · · · · · · · · · · · · · · ·		

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SDG:	Franklin Cleaners				
Number of Samples: Analysis:	<u>3</u> G-0080		1/21/08 5	amples	
Contractual Compliance		/ -	PH		
Tunes:		<u>Metals</u>	PII		
Surrogate Recoveries					
Blanks					
Initial Calibrations					
Continuing Calibrations					
Spikes		<u></u>	,		
Duplicates			$\checkmark$		
Laboratory Control Samples		<u></u>			
Comments/Notes:	Sample	5 analy	ized with	then hold	ling times
intern	al standar	ds accer	stable		0
interf	ierence ch	ecks a	cceptabl	٩	
<b>B</b>					

SDG:	Franklin Cleaners
Number of Samples: Analysis:	<u>3</u> G0180 2/7/08 samples
Contractual Compliance	VOC Metals PH
Tunes:	VOC <u>Metals</u> PH
Surrogate Recoveries	
Blanks	
Initial Calibrations	
Continuing Calibrations	
Spikes	
Duplicates	$ \checkmark$ $\checkmark$
Laboratory Control Samples	
Comments/Notes:	samples analyzed within holding times
inter	nal standards acceptable
inter	ference checks acceptable
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SDG:	Franklin Cleaners	
Number of Samples:	3	
Analysis:	G0220	2/19/08 samples
Contractual Compliance	<u>VOC</u>	PH
Tunes:		,
Surrogate Recoveries		
Blanks	see note /	
Initial Calibrations		
Continuing Calibrations		
Spikes		/
Duplicates		$\checkmark$
Laboratory Control Samples		
Comments/Notes:	<u></u> Samples an	alyzed within holding times
interna	• • • •	
interfer		-Ceptable
110010		
Xylene c	letected in mothe	od blank but not in samples
		ž.
	·	

SDG:	Franklin Cleaners	
Number of Samples:	5+78	
Analysis:	G0255 2/28/08 samples	
Contractual Compliance	<u>VOÇ</u> <u>Metals</u>	
Tunes:		
Surrogate Recoveries		
Blanks	_	
Initial Calibrations		
Continuing Calibrations		
Spikes		
Duplicates		
Laboratory Control Samples		
Comments/Notes:	Samples analyzed within holding times	-
i		/
intern	al standards acceptable	
<b></b>		
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SDG:	Franklin Cleaners		
Number of Samples:	2+TB		
Analysis:	60263	3/3/08 samples	
Contractual Compliance	VOC Motolo	•	
Tunes:	<u>VOC</u> <u>Metals</u>		
Surrogate Recoveries	<u> </u>		
Blanks			
Initial Calibrations	<u> </u>		
Continuing Calibrations	<u> </u>		
Spikes			
Duplicates			
Laboratory Control Samples	<u> </u>		
Comments/Notes:	Samples o	unalyzed within	holding times
<u>inter</u>		acceptable	0
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	SDG: Number of Samples: Analysis:	Franklin Cleaners	G0262	<u>3/3/08</u>	samples
	Contractual Compliance			$\sim$ 1	
	Tunes:		Metals	PH	
	Surrogate Recoveries				
	Blanks	<u> </u>			
	Initial Calibrations	-V			
	Continuing Calibrations	V			
	Spikes				
	Duplicates		$\checkmark$		
	Laboratory Control Samples	$\sim$			
Sex	Comments/Notes: internal standards e rial drivition+Interfer	Samples vithin mits to ence check	analyze within Irr	ed within h nits for m	vetals.
		N <del>T</del> . N. Sanangan (1997)		·	
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SDG: Number of Samples: Analysis:	Franklin Cleaners	<u>G0332 3/i</u>	7/08 samples
Contractual Compliance	VOO Notel	s pH	
Tunes:	VOC Metal		
Surrogate Recoveries	<u> </u>		
Blanks	$\checkmark$	, 	
Initial Calibrations			
Continuing Calibrations			·
Spikes		_	
Duplicates			
Laboratory Control Samples	$\checkmark$		
serial dilu-	Samples a tion+Interference		kmits for metals.
	erence between	/	licate for
Iron is 72	08  but  < 258	<b>•</b>	A Strand Contraction of the second
<b></b>			
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Data Validation Check List

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	Data Vali	dation Check List		
SDG: Number of Samples: Analysis:	Franklin Cleaners	6043	0 4/2/08 samp	
Contractual Compliance	Voo	B# - 4 - 1 -		
Tunes:		<u>Metals</u>	PH	
Surrogate Recoveries				
Blanks		$\checkmark$		
Initial Calibrations				
Continuing Calibrations	<u> </u>	$\checkmark$		
Spikes				
Duplicates				
Laboratory Control Samples	<u> </u>	<u> </u>		
Comments/Notes: <u>internal sta</u> <u>interference</u>	<u>Samples</u> <u>indiards wit</u> <u>e crect</u> w	· · · · · · · · · · · · · · · · · · ·		

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SDG: Number of Samples: Analysis:	Franklin Cleaners	G054	16	4/18/08 =	samples
Contractual Compliance					
Tunes:		<u>Metals</u>	PH		
Surrogate Recoveries					
Blanks					
Initial Calibrations					
Continuing Calibrations		$\checkmark$			
Spikes					
Duplicates					
Laboratory Control Samples					
Comments/Notes:	Samples	analyzed	within	holding	times.
internal sta	endards wi	thin limits	s for voc	, .s.	-
interference	check with	vin limits	for met	als.	
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	<u> </u>				
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Data Validation Check Lis	f
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	Data va	Indation Check Li	St ,	
SDG: Number of Samples: Analysis:	Franklin Cleaners		G-0 <b>6</b> 41	5/1/08 and 5/2/08 samples
Contractual Compliance				
Tunes:		Metals	PH	
Surrogate Recoveries				
Blanks		$\checkmark$		
Initial Calibrations	$\checkmark$	$\checkmark$		
Continuing Calibrations	$\checkmark$	<u> </u>		
Spikes				
Duplicates				
Laboratory Control Samples				
Comments/Notes:	Samples	analyz	ed within h	rolding times.
internal	standard	5 within	limits fo	r voce
interferer	nce check	within Ira	uts for m	stals.
	moled for	VOCS FC.	Mn on $5/1/c$	38 and pH on 5/2/08
creating	2 samples			
	-	· · · · · · · · · ·	······································	
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SDG: Number of Samples: Analysis:	Franklin Cleaners	G-0717	<u>5/13/08</u> samples
Contractual Compliance			
Tunes:		<u>letals</u> <u>PH</u>	
Surrogate Recoveries	<u> </u>		
Blanks	<u> </u>	$\checkmark$	
Initial Calibrations	<u> </u>	$\checkmark$	
Continuing Calibrations	<u> </u>	$\checkmark$	
Spikes			
Duplicates		<u> </u>	
Laboratory Control Samples	<u> </u>	$\checkmark$	
	standards	within 1imi	
inter-preno	e check wit	hin imits	for metals
	••••••••••••••••••••••••••••••••••••••		
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	Data Valida	ation Check List		
SDG: Number of Samples: Analysis:	Franklin Cleaners	G0768	5/20/08 Samples	
Contractual Compliance	1/00			
Tunes:		<u>Metals</u>		
Surrogate Recoveries				
Blanks				
Initial Calibrations				
Continuing Calibrations	<u> </u>			
Spikes	<u> </u>			
Duplicates	<u>*</u>			
Laboratory Control Samples	<u> </u>	<b>~~~~</b>		
Comments/Notes:			l within holding times.	
	Benzene.	Qualification r	not required, not detected in samples	5
	Internal St	andards u	sithin limits	
	· · · · · · · · · · · · · · · · · · ·			
	·····			
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SDG: Number of Samples: Analysis:	<u>6-0866</u> <u>3</u>		G/5/08 samples	
Contractual Compliance				
Tunes:		METALS	<u>рН</u>	
Surrogate Recoveries	$\checkmark$			
Blanks				
Initial Calibrations		<u> </u>		
Continuing Calibrations				
Spikes				
Duplicates				
Laboratory Control Samples	$\checkmark$			
Comments/Notes:		antin	not performed.	
			same day	
		elibration		
	······			
	·····			

ž,

SDG: Number of Samples: Analysis:	<u>60968</u> <u>3</u>	6/23/0	8 samples
Contractual Compliance	NOC		nU
Tunes:		METALS	<u>Н</u> а
Surrogate Recoveries			
Blanks			
Initial Calibrations		<u> </u>	
Continuing Calibrations			
Spikes			,
Duplicates			
Laboratory Control Samples	$\checkmark$	<u> </u>	
Comments/Notes:	· · · · · · · · · · · · · · · · · · ·		
			range for xylene.
Results	s not qui	alified, not	detected in samples.
		······································	

SDG: Number of Samples: Analysis:	G1097 3		7/10/08_samples
Contractual Compliance	Voo		
Tunes:		METALS	<u>рН</u>
Surrogate Recoveries			
Blanks			
Initial Calibrations	$\checkmark$	$\checkmark$	
Continuing Calibrations	$\checkmark$	$-\sqrt{-}$	
Spikes			
Duplicates			
Laboratory Control Samples			
		le detected alified, not	2 m Wank. E detected m samples.

SDG: Number of Samples: Analysis:	<u>G1206</u> <u>3</u>	7/25/08 50	imples
Contractual Compliance	200	METALO	-11
Tunes:		METALS	<u>рН</u>
Surrogate Recoveries	<u> </u>		
Blanks	$\checkmark$		
Initial Calibrations	<u> </u>		
Continuing Calibrations	$\checkmark$		
Spikes	······		
Duplicates			
Laboratory Control Samples	$\checkmark$	$\checkmark$	
Comments/Notes:			
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SDG: Number of Samples: Analysis:	<u>G1278</u> <u>3</u>	8/7/0	<u>8 samples</u>
Contractual Compliance	NOC		
Tunes:		METALS	<u>рН</u>
Surrogate Recoveries			
Blanks	_/		
Initial Calibrations	$\checkmark$	<u> </u>	
Continuing Calibrations			
Spikes			
Duplicates			
Laboratory Control Samples	$\checkmark$		
Comments/Notes:	<u>.</u>		
		· · · · · · · · · · · · · · · · · · ·	
		<del>.</del>	
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SDG: Number of Samples: Analysis:	G1359 7+tripb		<u>/8/08 samp</u> les	
Contractual Compliance	200	METALO		
Tunes:		METALS	<u>pH</u>	
Surrogate Recoveries				
Blanks				
Initial Calibrations				
Continuing Calibrations	2			
Spikes	$\checkmark$			
Duplicates	$\overline{}$			
Laboratory Control Samples				
Comments/Notes: <u>() Initial calibration out of range for 2-hexanone.</u> <u>Results not qualified, not detected in samples.</u> <u>(2) Continuing calibration not performed.</u> <u>Samples analyzed on same day as</u> <u>initial calibration.</u>				
corrective action form indicates trip blank received but not listed on chain of custody.				
				<u>of custody</u> . <u>g day replacement</u> .

			_	
SDG: Number of Samples: Analysis:	<u>G1377</u> <u>3</u>	8/21/08	<u>3 samples</u>	
Contractual Compliance				
Tunes:		IETALS	<u>pH</u>	
Surrogate Recoveries				
Blanks	<u> </u>	$\checkmark$		
Initial Calibrations		<u> </u>		
Continuing Calibrations	<u> </u>	$\checkmark$		
Spikes			,	
Duplicates				
Laboratory Control Samples		$\checkmark$		
Comments/Notes:				
DIN	utial calib	ration out.	of range for 2-hexa	unone.
Res	ults not a	valified, ne	t detected in samp	les_
		· · · · · · · · · · · · · · · · · · ·		
Sector (1997)				
			·	

SDG: Number of Samples: Analysis:	G1478 <u>3 Water</u> VOC, Fe, M. n		9/5/08 samples	
Contractual Compliance	VQC	METALS	PH	
Tunes:	Ž,	······································		
Surrogate Recoveries	<u> </u>			
Blanks				
Initial Calibrations	$\checkmark$	$\checkmark$		
Continuing Calibrations		$\checkmark$		
Spikes		· •	,	
Duplicates			$\checkmark$	
Laboratory Control Samples	$\overline{\checkmark}$	$\checkmark$	2	
Comments/Notes:			• • • • • • • • • • • • • • • • • • • •	_
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SDG: Number of Samples: Analysis:	G 1618 <u>3 Water</u> Voc, Fe, Mn	, pH	9/19/08 samples
Contractual Compliance	VOC	METALS	ρH
Tunes:			
Surrogate Recoveries	$\checkmark$		
Blanks	$\checkmark$		
Initial Calibrations	$\checkmark$		
Continuing Calibrations	$\checkmark$		
Spikes		``````````````````````````````````````	
Duplicates			$\checkmark$
Laboratory Control Samples	$\checkmark$	$\overline{\mathcal{N}}$	,
Comments/Notes:			
		· · · · · · · · · · · · · · · · · · ·	
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		nKlin CLu idation Check Li	—	
SDG: Number of Samples: Analysis:	G-1730 3 VOC, Fr. Mn p		10/3/08.00	nples
Contractual Compliance			рH	
Tunes:		METALS	PIT	
Surrogate Recoveries				
Blanks				
Initial Calibrations				
Continuing Calibrations	NA*			
Spikes			/	,
Duplicates		$\overline{}$	$\checkmark$	
Laboratory Control Samples	$\checkmark$	$\checkmark$	:	
	les run or ving calibro			
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SDG: Number of Samples: Analysis:	G1827 3 Voc, Fe, Ma.	۱ <u>ر</u> ۲	0/16/08 samples	6
Contractual Compliance	NOC	METALO	PH	
Tunes:		METALS	pri	
Surrogate Recoveries	$\overline{}$			
Blanks				
Initial Calibrations				
Continuing Calibrations				
Spikes				
Duplicates		$\checkmark$	$\checkmark$	
Laboratory Control Samples	$\checkmark$	$\checkmark$	Y.	
Comments/Notes:				
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SDG: Number of Samples: Analysis:	<u>G1973</u> <u>3</u> <u>Voc, Fe, Ma, p</u>		<u>130/08 samples</u>
Contractual Compliance	Voo		PH.
Tunes:		METALS	
Surrogate Recoveries			
Blanks			
Initial Calibrations		$\checkmark$	
Continuing Calibrations			
Spikes			,
Duplicates			$\checkmark$
Laboratory Control Samples	$\checkmark$	$\checkmark$	5.
Comments/Notes:		· · · · · · · · · · · · · · · · · · ·	
			icted at an
			od blank.
Results	not qualit	ied, not	defected in samples.
			· · · · · · · · · · · · · · · · · · ·
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Franklin Cleaners Data Validation Check List

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SDG: Number of Samples: Analysis:	G-2110 3 VOC, FE, MA, pH	11/12	<u>/08 samples</u>	
Contractual Compliance				
Tunes:		METALS	PH	
Surrogate Recoveries				
Blanks				
Initial Calibrations				
Continuing Calibrations				
Spikes		$\sim$		
Duplicates		$\checkmark$	$\checkmark$	
Laboratory Control Samples	$\checkmark$	$\checkmark$		
Comments/Notes:			<u></u>	
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Franklin Cleaners Data Validation Check List

SDG:	G2216		11/25/08 sample	16
Number of Samples: Analysis:	3 VOC, Fe, MA, F	sH		
Contractual Compliance		METALS	pH	
Tunes:				
Surrogate Recoveries				
Blanks	$\checkmark$			
Initial Calibrations	$\underline{\checkmark}$			
Continuing Calibrations		$\checkmark$		
Spikes			,	
Duplicates			$\checkmark$	
Laboratory Control Samples	$\checkmark$	~	1	
Comments/Notes:				
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# Franklin Cleaners Data Validation Check List

SDG: Number of Samples: Analysis:	G2255 7++riple Voc	olank	12/3/08 sample	5
Contractual Compliance	VOE			
Tunes:				
Surrogate Recoveries	$\underline{\checkmark}$			
Blanks	<u> </u>	<u> </u>		
Initial Calibrations		$\square$		
Continuing Calibrations		$\longrightarrow$		
Spikes	$\overline{\mathbf{V}}$			
Duplicates	$\checkmark$	$\perp$		
Laboratory Control Samples	$\checkmark$	/ \	X.	
Comments/Notes:		•		
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Project Name:	Franklin Cleaners
Project Number:	2531-03
Sample Date(s):	December 3, 2008
Matrix/Number of Samples:	<u>Water/7</u> Trip Blank/1
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI
Analyses:	Volatile Organic Compounds (VOCs): OLM4.2

Laboratory Report No:

MG2255

Date:12/18/2008

# ORGANIC ANALYSES

vocs

	Reported			rmance eptable	Not	
· ·	No	Yes	No	Yes	Required	
1. Holding times		X		X		
2. Blanks						
A. Method blanks		X		X		
B. Trip blanks		Х		X		
C. Field blanks					X	
3. Matrix spike (MS) %R		Х		X		
4. Matrix spike duplicate (MSD) %R		Х		X		
5. MS/MSD precision (RPD)		Х		X	-	
6. Laboratory Control Sample (LCS) %R		Х		X		
7. LCS duplicate (LCSD) %R					X	
8. LCS/LCSD precision (RPD)					Х	
9. Surrogate spike recoveries		X		X		
10. Instrument performance check		Х		X		
11. Internal standard retention times and areas		Х		X		
12. Initial calibration RRF's and %RSD's		Х		X		
13. Continuing calibration RRF's and %D's		X		Х		
14. Field duplicates RPD					X	
DCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent rel		deviation		RF - relative resp PD - relative per		

#### Comments:

Performance was acceptable .

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 05/13/2009
VALIDATION PERFORMED BY SIGNATURE:	Jun R
PEER REVIEW BY & DATE:	Robbin Petrella 05/19/2009

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_MG2255_120308.doc

Pages 1/1

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	December 9, 2008	
Matrix/Number of Samples:	<u>Water/3</u> <u>Trip Blank/0</u>	•
Analyzing Laboratory:	Mitkem Laboratories, Warwic	k, RI
Analyses:	Volatile Organic Compounds Metals: Iron and manganese b	( <u>VOCs):</u> OLM4.2 y USEPA SW846 Method 6010
Laboratory Report No:	MG2307	Date:1/08/2009

# ORGANIC ANALYSES

VOCS

Report No:

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		X		Х	, <del>7</del>	
2. Blanks		• .				
A. Method blanks		Х		X		
B. Trip blanks					X	
C. Field blanks					Х	
3. Matrix spike (MS) %R					Х	
4. Matrix spike duplicate (MSD) %R		•			Х	
5. MS/MSD precision (RPD)				, ,	X	
6. Laboratory Control Sample (LCS) %R		Х		X		
7. LCS duplicate (LCSD) %R					Х	
8. LCS/LCSD precision (RPD)					Х	
9. Surrogate spike recoveries		Х		X		
10. Instrument performance check		Х		X		
11. Internal standard retention times and areas		Х		X		
12. Initial calibration RRF's and %RSD's		Х		Х		
13. Continuing calibration RRF's and %D's		Х	Х			
14. Field duplicates RPD					X	
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent re		deviation		RF - relative resp PD - relative per		

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for acetone, methyl acetate, 2-butanone, 2-hexanone, and 1,2-dibromo-3-chloropropane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_MG2307_120908.doc

Reported		Performance Acceptable		Not
	X		X	
	-			
	X		X	
				X
	X		X	
	X		X	
				X
	X		X	
	X		X	
	X		X	
·				X
	X		X	
	X		X	
				X
		No         Yes           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X	Reported     Access       No     Yes     No       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X	ReportedAcceptableNoYesNoYesXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

## Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 05/13/2009
VALIDATION PERFORMED BY SIGNATURE:	en man
PEER REVIEW BY & DATE:	Robbin Petrella 05/19/2009

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_MG2307_120908.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	December 24, 2008	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	
Analyzing Laboratory:	Mitkem Laboratories, Warv	vick, RI
Analyses:	Volatile Organic Compound Metals: Iron and manganese	ls (VOCs): OLM4.2 by USEPA SW846 Method 6010
Laboratory Report No:	MG2418	Date:1/13/2009

#### ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		Х	
2. Blanks					
A. Method blanks		Х		х	
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					Х
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X	,	Х	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		X		Х	
10. Instrument performance check		Х		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		Х		Х	
13. Continuing calibration RRF's and %D's		Х		Х	
14. Field duplicates RPD					X
OCs - volatile organic compounds%D - percent differ%R - percent recovery%RSD - percent ret		deviation		RF - relative resp PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for dichlorodifluoromethane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

	Reported		Performance Acceptable		
					Not
	No	Yes	No	Yes	Required
1. Holding times		X		Х	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks		• •			X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X
R - percent recovery %D - percent diff	erence	RP	D - relative pe	rcent differen	ce

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 05/13/2009
VALIDATION PERFORMED BY SIGNATURE:	1chm R
PEER REVIEW BY & DATE:	Robbin Petrella 05/19/2009

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_MG2418_122408.doc

Project Name:	Franklin Cleaners		•
Project Number:	2531-03	· · · · · · · · · · · · · · · · · · ·	
Sample Date(s):	January 8, 2009	······································	
Matrix/Number	Water/3		
of Samples:	<u>Trip Blank/0</u>		
Analyzing	Mitkem Laboratories, W	Tomviele DI	
Laboratory:	Wittkein Laboratories, W	ai wick, iti	
	Volatile Organic Compo	unds (VOCs): OLM4.2	
Analyses:	Metals: Iron and mangar	nese by USEPA SW846 Method 6010	
Laboratory	SH0030	Date:1/30/2009	

#### ORGANIC ANALYSES

VOCS

Report No:

	Reported			Performance Acceptable	
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		Х		Х	
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		Х		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		X		X	
13. Continuing calibration RRF's and %D's		Х	X		
14. Field duplicates RPD					X
/OCs - volatile organic compounds       %D - percent difference         %R - percent recovery       %RSD - percent relative standard deviation			RF - relative resp PD - relative per		

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for dichlorodifluoromethane, bromomethane, chloroethane, trichlorofluoromethane, acetone, and 1,2-dichloroethane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0030_010809.doc

	Reported			Performance Acceptable	
	No	Yes	No	Yes	Not Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks				1.	Х
3. Initial calibration verification %R		X		X	///
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		Х		X	·
8. Spike sample %R		X		X	
9. Post digestive spike sample %R	a e				Х
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 05/13/2009
VALIDATION PERFORMED BY SIGNATURE:	Q-R
PEER REVIEW BY & DATE:	Robbin Petrella 05/19/2009

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0030_010809.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	January 19, 2009	·
Matrix/Number of Samples:	<u>Water/3</u> <u>Trip Blank/0</u>	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
Analyses:	Volatile Organic Compounds (VOCs) Metals: Iron and manganese by USEP	
Laboratory Report No:	SH0088	Date:2/3/2009

#### ORGANIC ANALYSES

VOCS

	Reported			rmance eptable	Not	
	No	Yes	No	Yes	Required	
1. Holding times		X		Х		
2. Blanks						
A. Method blanks		Х		X		
B. Trip blanks					X	
C. Field blanks					X	
3. Matrix spike (MS) %R					X	
4. Matrix spike duplicate (MSD) %R					X	
5. MS/MSD precision (RPD)					X	
6. Laboratory Control Sample (LCS) %R		X		X		
7. LCS duplicate (LCSD) %R					Х	
8. LCS/LCSD precision (RPD)					X	
9. Surrogate spike recoveries		X		X		
10. Instrument performance check		X		Х		
11. Internal standard retention times and areas		Х		Х		
12. Initial calibration RRF's and %RSD's		X		Х		
13. Continuing calibration RRF's and %D's		Х	X			
14. Field duplicates RPD		******			Х	
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent re		deviation		RF - relative resp PD - relative per		

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for dichlorodifluoromethane, chloroethane, and methyl acetate in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R					X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X
R - percent recovery %D - percent diff	erence	RP	D - relative pe	rcent differen	ce

# Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 05/14/2009
VALIDATION PERFORMED BY SIGNATURE:	Ran R
PEER REVIEW BY & DATE:	Robbin Petrella 05/19/2009

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0088_011909.doc

Project Name:	Franklin Cleaners		
Project Number:	2531-03		
Sample Date(s):	February 2, 2009	. ,	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0		
Analyzing Laboratory:	Mitkem Laboratories, Warw	ick, RI	· · ·
Analyses:	Volatile Organic Compound Metals: Iron and manganese	<u>s (VOCs):</u> OLM4.2 by USEPA SW846 Method 6010	
Laboratory Report No:	SH0150	Date:2/12/2009	

#### ORGANIC ANALYSES

VOCS

	Reported			Performance Acceptable	
	No	Yes	No	Yes	Required
1. Holding times		Х	• .	X	
2. Blanks					
A. Method blanks		Х		X	
B. Trip blanks					Х
C. Field blanks					Х
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					Х
5. MS/MSD precision (RPD)				-	X
6. Laboratory Control Sample (LCS) %R		X		X	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		X		X	
10. Instrument performance check		Х		X	
11. Internal standard retention times and areas		X		X	
12. Initial calibration RRF's and %RSD's		X	X		
13. Continuing calibration RRF's and %D's					Х
14. Field duplicates RPD					Х
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent rel		deviation		RF - relative resp PD - relative perc	

#### Comments:

Performance was acceptable with the following exception:

12. The %RSD was above the QC limit of 30 % for dichlorodifluoromethane, acetone, and methyl acetate in the initial calibration associated with all samples. The above compounds were not detected and therefore do not impact the usability of the sample results.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0150_020209.doc

Reported		Performance Acceptable		Not
	X		X	
	X		X	
		-		X
	X		X	
	X		X	
			-	X
	X		X	
	X		X	
	X		X	
				Х
į	X		X	
	Х		X	
				Х
	<b>*</b>	No         Yes           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X	No         Yes         No           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X	No         Yes         No         Yes           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 05/14/2009
VALIDATION PERFORMED BY SIGNATURE:	lima
PEER REVIEW BY & DATE:	Robbin Petrella 05/19/2009

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0150_020209.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	·
Sample Date(s):	February 26, 2009	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
Analyses:	Volatile Organic Compounds (VOCs): Metals: Iron and manganese by USEPA	
Laboratory Report No:	SH0288	Date:3/13/2009

# ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		Х		Х		
2. Blanks						
A. Method blanks		Х		X		
B. Trip blanks					X	
C. Field blanks					X	
3. Matrix spike (MS) %R					Х	
4. Matrix spike duplicate (MSD) %R					X	
5. MS/MSD precision (RPD)					X	
6. Laboratory Control Sample (LCS) %R		Х		X		
7. LCS duplicate (LCSD) %R					X	
8. LCS/LCSD precision (RPD)					X	
9. Surrogate spike recoveries		Х	X			
10. Instrument performance check		Х		Х		
11. Internal standard retention times and areas		X		Х		
12. Initial calibration RRF's and %RSD's		Х		Х		
13. Continuing calibration RRF's and %D's					Х	
14. Field duplicates RPD					·X	
DCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent rel		deviation		RF - relative res PD - relative per		

#### Comments:

Performance was acceptable with the following exception:

9. The %R was slightly below the QC limit for toluene-d8 in sample AS. Compounds were not detected in the sample and therefore do not impact the usability of the sample results.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0288_022609.doc

			Perfor	mance	
	Reported		Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					-
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R	•.	X		X	
9. Post digestive spike sample %R					X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X
R - percent recovery %D - percent diff	ference	RP	D - relative pe	rcent differen	ce

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 05/14/2009
VALIDATION PERFORMED BY SIGNATURE:	Um Ru
PEER REVIEW BY & DATE:	Robbin Petrella 05/19/2009

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0288_022609.doc

Project Name:	Franklin Cleaners		
Project Number:	2531-03		
Sample Date(s):	March 11, 2009		
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0		
Analyzing Laboratory:	Mitkem Laboratories, Warw	ick, RI	
Analyses:	Volatile Organic Compound Metals: Iron and manganese	<u>s (VOCs):</u> OLM4.2 by USEPA SW846 Method 6010	
Laboratory Report No:	SH0364	Date:3/27/2009	

#### ORGANIC ANALYSES

VOCS

1 g

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	-
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks					Х
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					Х
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		Х		Х	
10. Instrument performance check		X		Х	
11. Internal standard retention times and areas		X		X	
12. Initial calibration RRF's and %RSD's		Х		X	
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					Х
OCs - volatile organic compounds%D - percent differR - percent recovery%RSD - percent rel		deviation		RF - relative resp PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for acetone, cyclohexane, 2-butanone, methylcyclohexane and 1,2-dibromo-3chloropropane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0364_031109.doc

	_			mance	
	Reported		Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					. X
11. Serial dilution check %D					Х
12. Field duplicates RPD					X
R - percent recovery %D - percent diffe	erence	RP	D - relative pe	rcent differen	ce

.

Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/18/2009
VALIDATION PERFORMED BY SIGNATURE:	1 - P-

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0364_031109.doc

Project Name:	Franklin Cleaners
Project Number:	2531-03
Sample Date(s):	March 19&20, 2009
Matrix/Number	Water/7
of Samples:	Trip Blank/1
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI
Analyses:	Volatile Organic Compounds (VOCs): OLM4.2

Laboratory

Report No:

SH0449

Date:3/27/2009

# ORGANIC ANALYSES

	Reported			rmance ptable	Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		Х		X	
B. Trip blanks		Х		Х	
C. Field blanks					Х
3. Matrix spike (MS) %R	1				Х
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X		·X	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		X		X	·····
10. Instrument performance check		Х		X	
11. Internal standard retention times and areas		Х	1	X	
12. Initial calibration RRF's and %RSD's		Х		Х	
13. Continuing calibration RRF's and %D's		Х	X		*
14. Field duplicates RPD					X
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent rel		l deviation	RI	RF - relative resp PD - relative per	oonse factor cent difference

Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for carbon disulfide, 2-butanone, 4-methyl-2pentanone and 2-hexanone in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/18/2009
VALIDATION PERFORMED BY SIGNATURE:	Ne - Ru

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0449_031909.doc

Pages

1/1

Project Name:	Franklin Cleaners		
Project Number:	2531-03		
Sample Date(s):	March 25, 2009		
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0		
Analyzing Laboratory:	Mitkem Laboratories,	Warwick, RI	
Analyses:	Volatile Organic Compounds (VOCs): OLM4.2 Metals: Iron and manganese by USEPA SW846 Method 6010		
Laboratory Report No:	SH0476	Date:4/22/2009	

#### ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		Х	X		
B. Trip blanks					Х
C. Field blanks				-	X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					Х
5. MS/MSD precision (RPD)					Х
6. Laboratory Control Sample (LCS) %R		X		X	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)	:				Х
9. Surrogate spike recoveries		Х		Х	
10. Instrument performance check		X		Х	
11. Internal standard retention times and areas		Х		Х	
12. Initial calibration RRF's and %RSD's		X		X	
13. Continuing calibration RRF's and %D's		Х	X		
14. Field duplicates RPD					X
OCs - volatile organic compounds %D - percent differ R - percent recovery %RSD - percent rel		deviation		RF - relative res PD - relative per	

#### Comments:

Performance was acceptable with the following exceptions:

- 2A. 1,2,4-Trichlorobenzene was detected in the method blank. 1,2,4-Trichlorobenzene was not detected in the associated samples therefore qualification of the data was not necessary.
- 13. The %D was above the QC limit of 25 % for 2-hexanone in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0476_032509.doc

	Reported		Performance Acceptable		Not
n na hanna an ann an ann an ann an ann an	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R					X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD				1	Х
R - percent recovery %D - percent diffe	rence	RP	D - relative pe	rcent differen	be

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Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/18/2009
VALIDATION PERFORMED BY SIGNATURE:	la-2

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0476_032509.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	April 8, 2009	
Matrix/Number of Samples:	<u>Water/3</u> <u>Trip Blank/0</u>	
Analyzing Laboratory:	Mitkem Laboratories, Warwic	k, RI
Analyses:	Volatile Organic Compounds Metals: Iron and manganese b	( <u>VOCs):</u> OLM4.2 y USEPA SW846 Method 6010
Laboratory Report No:	SH0580	Date:4/28/2009

#### ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х	] ]	X	
2. Blanks					
A. Method blanks		Х		Х	
B. Trip blanks					Х
C. Field blanks					Х
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					Х
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		X		X	
10. Instrument performance check		Х		X	
11. Internal standard retention times and areas		Х		Х	
12. Initial calibration RRF's and %RSD's		X		X	
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					X
DCs - volatile organic compounds %D - percent differ R - percent recovery %RSD - percent re		deviation		RF - relative res PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for trichlorofluoromethane and acetone in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

			Perfor	mance	1
· · · · · · · · · · · · · · · · · · ·	Reported		Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					• X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R		1		]	X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X
2 - percent recovery %D - percent diff	erence	RP	D - relative pe	rcent differen	ce

%R - percent recovery

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/18/2009
VALIDATION PERFORMED BY SIGNATURE:	le-2~

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0580_040809.doc

Project Name:	Franklin Cleaners			
Project Number:	2531-03		•	
Sample Date(s):	April 24, 2009			
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0			
Analyzing Laboratory:	Mitkem Laboratories, Warwick, R	I		
Analyses:	Volatile Organic Compounds (VO Metals: Iron and manganese by US			
Laboratory Report No:	SH0709	Date:5/11/2009		

#### ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	<b>E</b>
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R				- -	Х
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					Х
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		X		Х	
10. Instrument performance check		X		X	
11. Internal standard retention times and areas		X		X	
12. Initial calibration RRF's and %RSD's		X		Х	4
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					X
DCs - volatile organic compounds %D - percent differ R - percent recovery %RSD - percent re		deviation		RF - relative resp PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for 2-butonone and acetone in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0709_042409.doc

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks				1	X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R				1	X
9. Post digestive spike sample %R	-				X
10. Duplicate %RPD					X
11. Serial dilution check %D				· ·	X
12. Field duplicates RPD					X
R - percent recovery %D - percent diff	erence	RP	D - relative pe	rcent differend	e

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/18/2009
VALIDATION PERFORMED BY SIGNATURE:	d-R-

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0709_042409.doc

Project Name:	Franklin Cleaners		
Project Number:	2531-03		
Sample Date(s):	May 5, 2009		
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0		
Analyzing Laboratory:	Mitkem Laboratories, Warwich	s, RI	
Analyses:	Volatile Organic Compounds ( Metals: Iron and manganese by	<u>VOCs):</u> OLM4.2 v USEPA SW846 Method 6010	· · · · ·
Laboratory Report No:	SH0780	Date:5/26/2009	

## ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х	]	X	
2. Blanks			1		
A. Method blanks		Х		X	
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					. X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		X		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		Х		X	· .
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					Х
OCs - volatile organic compounds %D - percent differ R - percent recovery %RSD - percent rel		deviation		RF - relative resp PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for bromomethane and acetone in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0780_050509.doc

37		otable	Not
Yes	No	Yes	Required
Х		X	<b>`</b>
X		X	
	····		·X
X		X	
X		X	
			X
X		X	
X		X	
X		X	
			Х
X		X	
X		X	
	••••		Х
	X	X	

# Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/18/2009
VALIDATION PERFORMED BY SIGNATURE:	il- pr

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0780_050509.doc

Project Name:	Franklin Cleaners			
Project Number:	2531-03	· · ·		
Sample Date(s):	May 18, 2009			
Matrix/Number of Samples:	<u>Water/10</u> Trip Blank/1			
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI			
Analyses:	<u>Volatile Organic Compounds (VOCs):</u> OLM4.2 <u>Metals:</u> Iron and manganese by USEPA SW846 Method 6010			
Laboratory Report No:	SH0873	Date:5/29/2009		

### ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		X		X	· · · · · · · · · · · · · · · · · · ·
B. Trip blanks		Х		X	
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		Х		X	10 Million 2000
7. LCS duplicate (LCSD) %R					. X
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		Х		Х	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		Х		X	te ta mada a su construir de la
13. Continuing calibration RRF's and %D's		Х	X		
14. Field duplicates RPD					X
DCs - volatile organic compounds%D - percent differR - percent recovery%RSD - percent re		deviation		RF - relative resp PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for dichlorodifluoromethane, bromomethane and chloroethane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					1
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R			-teert		X
9. Post digestive spike sample %R				1	Х
10. Duplicate %RPD					X
11. Serial dilution check %D				1	Х
12. Field duplicates RPD					Х

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 08/18/2009
VALIDATION PERFORMED BY SIGNATURE:	le - pu

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH0873_051809.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	June 3, 2009	·
Matrix/Number of Samples:	<u>Water/3</u> <u>Trip Blank/0</u>	
Analyzing Laboratory:	Mitkem Laboratories, Warwig	k, RI
Analyses:	Volatile Organic Compounds Metals: Iron and manganese b	( <u>VOCs):</u> OLM4.2 y USEPA SW846 Method 6010
Laboratory Report No:	SH1008	Date:6/17/2009

# ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		Х	
2. Blanks					
A. Method blanks		Х		Х	
B. Trip blanks					Х
C. Field blanks					Х
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					· X
5. MS/MSD precision (RPD)					Х
6. Laboratory Control Sample (LCS) %R		Х		х	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		Х		Х	
10. Instrument performance check		Х		Х	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		X		Х	
13. Continuing calibration RRF's and %D's					Х
14. Field duplicates RPD					X
OCs - volatile organic compounds %D - percent differ	rence		R	RF - relative res	ponse factor

%R - percent recovery

%D - percent difference %RSD - percent relative standard deviation RRF - relative response factor RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1008_060309.doc

ted		mance ptable	Not
Yes	No	Yes	Required
Х		X	<u> </u>
Х	X		
			X
Х		X	
Х		X	
			X
Х		X	
X		X	
			X
			X
			X
			X
			X
	RP	RPD - relative pe	RPD - relative percent differen

#### Comments:

Performance was acceptable, with the following exception:

2A. Manganese was detected in preparation blank and detected in the sample at concentration less than ten times the concentration found in the blank. Therefore, manganese in sample AS was qualified as non-detect (U).

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 09/9/2009
VALIDATION PERFORMED BY SIGNATURE:	lemper

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1008_060309.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	June 18, 2009	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	
Analyzing Laboratory:	Mitkem Laboratories, Warwick,	RI
Analyses:	Volatile Organic Compounds (V Metals: Iron and manganese by U	
Laboratory Report No:	SH1116	Date:7/29/2009

# ORGANIC ANALYSES

VOCS

	Rep	orted		rmance eptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	· • • • ·
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					Х
C. Field blanks					X
3. Matrix spike (MS) %R		•			Х
4. Matrix spike duplicate (MSD) %R					Х
5. MS/MSD precision (RPD)					Х
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					х
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		Х		X	·
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		Х		X	
13. Continuing calibration RRF's and %D's		Х		Х	
14. Field duplicates RPD					x
Cs - volatile organic compounds %D - percent differ	ence		R	RF - relative resp	ponse factor

%R - percent recovery

%D - percent difference %RSD - percent relative standard deviation RRF - relative response factor RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1116_061809.doc

Repo	orted			Not
No	Yes	No	Yes	Required
	X		X	
	X		X	
				X
	X		X	
	X		X	
				X
	X		X	
	X		X	
· · · ·	X		X	
				X
	X		X	
	X	·····	X	
				X
		X X X X X X X X X X X X X X	ReportedAcceptionNoYesNoXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	No         Yes         No         Yes           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X

%R - percent recovery

%D - percent difference

RPD - relative percent difference

<u>Comments</u>: Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 09/9/2009
VALIDATION PERFORMED BY SIGNATURE:	Den Ru

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1116_061809.doc

Project Name:	Franklin Cleaners		•
Project Number:	2531-03		
Sample Date(s):	July 1, 2009		
Matrix/Number	Water/3		
of Samples:	Trip Blank/0		
Analyzing	N Cal T -1 1	1. DI	
Laboratory:	Mitkem Laboratories, Warwic	K, K1	
_	Volatile Organic Compounds	(VOCs): OLM4.2	
Analyses:	Metals: Iron and manganese b	y USEPA SW846 Method 6010	
Laboratory Report No:	SH1209	Date:7/17/2009	

# **ORGANIC ANALYSES**

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	·····
2. Blanks					
A. Method blanks		Х		X	
B. Trip blanks					Х
C. Field blanks					Х
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		Х		Х	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		X		X	
10. Instrument performance check		X		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		X		X	
13. Continuing calibration RRF's and %D's					X
14. Field duplicates RPD					X
CCs - volatile organic compounds %D - percent differ				RF - relative resp	

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1209_070109.doc

# INORGANIC ANALYSES

	ľ	V	E	I	Ά	LS	
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	Repo	orted		mance ptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D					Х
12. Field duplicates RPD					Х
R - percent recovery %D - percent diff	erence	RP	D - relative pe	rcent differen	ce

# Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 09/9/2009
VALIDATION PERFORMED BY SIGNATURE:	lh-p-

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	July 15, 2009	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
Analyses:	Volatile Organic Compounds (VOC Metals: Iron and manganese by USI	
Laboratory Report No:	SH1289	Date:7/28/2009

### **ORGANIC ANALYSES**

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		Х		X	
B. Trip blanks					х
C. Field blanks					х
3. Matrix spike (MS) %R					Х
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					Х
6. Laboratory Control Sample (LCS) %R		Х		X	•
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		Х		X	
11. Internal standard retention times and areas		X		X	
12. Initial calibration RRF's and %RSD's		X		X	
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					X
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent re		deviation		RF - relative resp PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for dichlorodifluoromethane, chloromethane, acetone, carbon tetrachloride, 1,2-dichloroethane and 1,2-dibromo-3-chloropropane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1289_071509.doc

			Perfor	mance	
	Reported		Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					× .
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard, %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R	· .				X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X
- percent recovery %D - percent diff	erence	RP	D - relative pe	rcent differen	ce

%R - percent recovery

# Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 09/9/2009
VALIDATION PERFORMED BY SIGNATURE:	la - Re

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1289_071509.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	July 28, 2009	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
Analyses:	Volatile Organic Compounds (VOCs): Metals: Iron and manganese by USEPA	
Laboratory Report No:	SH1396	Date:9/21/2009

# **ORGANIC ANALYSES**

VOCS

· ·	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	Et manua
2. Blanks					
A. Method blanks		X		Х	
B. Trip blanks					Х
C. Field blanks					Х
3. Matrix spike (MS) %R					Х
4. Matrix spike duplicate (MSD) %R					Х
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		· X		X	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		Х		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		Х		X	
13. Continuing calibration RRF's and %D's		Х	X		
14. Field duplicates RPD					X
DCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent re		deviation		RF - relative resp PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

The %D was above the QC limit of 25 % for dichlorodifluoromethane, chloromethane, vinyl 13. chloride and methylcyclohexane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks		-			
A. Preparation and calibration blanks	2	X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X	·	X	
5. CRDL standard %R					X
6. Interference check sample %R	1	X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D					X
12. Field duplicates RPD					X

%R - percent recovery

#### %D - percent difference

RPD - relative percent difference

# Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 09	9/9/2009
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J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1396_072809.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	August 13, 2009	
Matrix/Number of Samples:	<u>Water/10</u> <u>Trip Blank/1</u>	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	· · ·
Analyses:	Volatile Organic Compounds (VOCs) Metals: Iron and manganese by USEF	
Laboratory Report No:	SH1564	Date:8/31/2009

# **ORGANIC ANALYSES**

VOCS

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		Х		X		
2. Blanks						
A. Method blanks		Х		Х	· · · ·	
B. Trip blanks		Х		Х		
C. Field blanks					Х	
3. Matrix spike (MS) %R					Х	
4. Matrix spike duplicate (MSD) %R					Х	
5. MS/MSD precision (RPD)					X	
6. Laboratory Control Sample (LCS) %R		Х		Х		
7. LCS duplicate (LCSD) %R				c.	Х	
8. LCS/LCSD precision (RPD)					Х	
9. Surrogate spike recoveries	1	Х		Х	- · · ·	
10. Instrument performance check		Х		X		
11. Internal standard retention times and areas		Х		Х		
12. Initial calibration RRF's and %RSD's		Х		Х		
13. Continuing calibration RRF's and %D's					Х	
14. Field duplicates RPD					Х	
CS - volatile organic compounds %D - percent differ		(1		RF - relative res		

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1564_081309.doc

# INORGANIC ANALYSES

METALS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X	Х		
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					Х
11. Serial dilution check %D					Х
12. Field duplicates RPD					Х
R - percent recovery %D - percent diff	erence	RP	D - relative pe	rcent differend	ce

#### Comments:

Performance was acceptable, with the following exception:

2A. Manganese was detected in preparation blank and detected in the sample at concentration less than ten times the concentration found in the blank. Therefore, manganese in sample AS was qualified as non-detect (U).

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 09/9/2009
VALIDATION PERFORMED BY SIGNATURE:	De - Ru

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1564_081309.doc

Project Name:	Franklin Cleaners			
Project Number:	2531-03			
Sample Date(s):	August 24, 2009			
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	· · · · · · · · · · · · · · · · · · ·		
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI			
Analyses:	Volatile Organic Compounds (VOCs): OLM4.2 Metals: Iron and manganese by USEPA SW846 Method 6010			
Laboratory Report No:	SH1634	Date:9/8/2009		

# ORGANIC ANALYSES

vocs

	Rep	orted	1	rmance ptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		Х		X	
B. Trip blanks				·	X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R			İ İ		X
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		X		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		Х		Х	
13. Continuing calibration RRF's and %D's		X		Х	
14. Field duplicates RPD					X
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent rel		deviation		RF - relative resp PD - relative per	

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1634_082409.doc

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks				1	-
A. Preparation and calibration blanks		X		Х.	
B. Field blanks			· · · ·		X
3. Initial calibration verification %R	***	X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD				1	X
11. Serial dilution check %D	-				Х
12. Field duplicates RPD					X
R - percent recovery %D - percent diff	erence	RP	D - relative pe	rcent differen	ce

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 09/24/2009
VALIDATION PERFORMED BY SIGNATURE:	Rank

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1634_082409.doc

Project Name:	Franklin Cleaners				
Project Number:	2531-03	2531-03			
Sample Date(s):	September 8, 2009				
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0				
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI				
Analyses:	<u>Volatile Organic Compounds (VOCs):</u> OLM4.2 <u>Metals:</u> Iron and manganese by USEPA SW846 Method 6010				
Laboratory Report No:	SH1733	Date:9/28/2009			

# **ORGANIC ANALYSES**

VOCS

	Reported		1	rmance eptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		x	
2. Blanks					
A. Method blanks		X		Х	
B. Trip blanks					X
C. Field blanks	¢				X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X		X	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					X ·
9. Surrogate spike recoveries		X		Х	
10. Instrument performance check		X		Х	
11. Internal standard retention times and areas		Х		Х	
12. Initial calibration RRF's and %RSD's		Х		Х	
13. Continuing calibration RRF's and %D's		Х		Х	
14. Field duplicates RPD					Х
DCs - volatile organic compounds %D - percent diff				RF - relative res	

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1733_090809.doc

Reported		Performance Acceptable		Not
No	Yes	No	Yes	Required
	X		X	
	X		X	
				X
	X		X	
	X		X	
	X		X	
	X		X	
	X		X	
				X
	X		X	
	X		X	
				Х
	*	X X X X X X X X X X X X X	ReportedAcceptionNoYesNoXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	$\begin{tabular}{ c c c c } \hline Reported & Acceptable \\ \hline No & Yes & No & Yes \\ \hline X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline & X & X & X \\ \hline \end{array}$

Comments:

Performance was acceptable.

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VALIDATION PERFORMED BY SIGNATURE:	1Cm m

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1733_090809.doc

Project Name:	Franklin Cleaners		
Project Number:	2531-03		
Sample Date(s):	September 25, 2009		
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0		
Analyzing Laboratory:	Mitkem Laboratories, Warw	ick, RI	
Analyses:	Volatile Organic Compound Metals: Iron and manganese	<u>s (VOCs):</u> OLM4.2 by USEPA SW846 Method 6010	
Laboratory Report No:	SH1883	Date:10/22/2009	

# **ORGANIC ANALYSES**

VOCS

	Rep	orted		rmance eptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks				1.53 II	
A. Method blanks		X		x	
B. Trip blanks					Х
C. Field blanks					Х
3. Matrix spike (MS) %R					Х
4. Matrix spike duplicate (MSD) %R					Х
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X		X	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		X		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		Х		X	
13. Continuing calibration RRF's and %D's		Х	X		
14. Field duplicates RPD					Х
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent recovery		deviation		RF - relative resp PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for trichlorofluoromethane in the continuing calibration associated with all samples. The above compound was qualified as estimated (J/UJ) in all samples.

	Repo	orted		mance ptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R	·	X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D					X
12. Field duplicates RPD					X
R - percent recovery %D - percent diff	ference	RP	D - relative pe	rcent differen	ce

Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 12	2/23/2009
VALIDATION PERFORMED BY SIGNATURE:	le-	P-

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1883_092509.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	October 5, 2009	
Matrix/Number of Samples:	<u>Water/3</u> <u>Trip Blank/0</u>	
Analyzing Laboratory:	Mitkem Laboratories, Warw	ick, RI
Analyses:	Volatile Organic Compound Metals: Iron and manganese	<u>s (VOCs):</u> OLM4.2 by USEPA SW846 Method 6010
Laboratory Report No:	SH1944	Date:10/29/2009

# ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		X		Х	
B. Trip blanks					Х
C. Field blanks				•	Х
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					Х
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		Х		Х	
10. Instrument performance check		. X		X	
11. Internal standard retention times and areas		X		Х	
12. Initial calibration RRF's and %RSD's		Х		Х	
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					X
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent re		l deviation		RF - relative res PD - relative per	

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for dichlorofluoromethane, acetone and bromoform in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1944_100509.doc

# INORGANIC ANALYSES

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	Reported			Performance Acceptable	
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		. X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R					X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X
R - percent recovery %D - percent dif	ference	RP	D - relative per	rcent differen	ce

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 12/23/2009
VALIDATION PERFORMED BY SIGNATURE:	l-R

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH1944_100509.doc

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Project Name:	Franklin Cleaners		
Project Number:	2531-03	·	
Sample Date(s):	October 26, 2009		
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0		
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI		
Analyses:	Volatile Organic Compo Metals: Iron and mangan	unds (VOCs): OLM4.2 ese by USEPA SW846 Method 6010	
Laboratory Report No:	SH2125	Date:11/18/2009	

# ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		Х	
2. Blanks					11 - C. C. C. C. C. C. C. C. C. C. C. C. C.
A. Method blanks		X		X	
B. Trip blanks					X
C. Field blanks					X
3. Matrix spike (MS) %R					X
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		X		Х	
7. LCS duplicate (LCSD) %R					. X
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		Х		Х	
10. Instrument performance check		Х		Х	
11. Internal standard retention times and areas		Х		Х	
12. Initial calibration RRF's and %RSD's		X		Х	
13. Continuing calibration RRF's and %D's		X	X		
14. Field duplicates RPD					X
OCs - volatile organic compounds %D - percent differ				RF - relative res	

%R - percent recovery

%RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exception:

13. The %D was above the QC limit of 25 % for dichlorofluoromethane, chloromethane, vinyl chloride, trichlorofluoromethene and methylcyclohexane in the continuing calibration associated with all samples. The above compounds were qualified as estimated (J/UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2125_102609.doc

# **INORGANIC ANALYSES**

METALS

	Reported		Performance Acceptable		Not
··· ·· ·· ··	No	Yes	No	Yes	Required
1. Holding times		X		X	<b>_</b>
2. Blanks					
A. Preparation and calibration blanks		X	Х		
B. Field blanks	+				X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	-
9. Post digestive spike sample %R					X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					Х
R - percent recovery %D - percent dif	ference	RP	D - relative pe	ercent differen	ce

#### Comments:

Performance was acceptable with the following exception:

2A. Manganese and iron were detected in preparation blank and detected in the sample at concentration less than ten times the concentration found in the blank. Therefore, manganese and iron in sample AS were qualified as non-detect (U).

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 12/23/2009
VALIDATION PERFORMED BY SIGNATURE:	Q-mpm

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2125_102609.doc

Project Name:	Franklin Cleaners		
Project Number:	2531-03		
Sample Date(s):	November 9, 2009		
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0		
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI		
Analyses:	Volatile Organic Compounds (Vo Metals: Iron and manganese by U		
Laboratory Report No:	SH2221	Date:12/8/2009	

#### **ORGANIC ANALYSES**

VOCS

	Reported		Performance Acceptable		Not
· · · · · ·	No	Yes	No	Yes	Required
1. Holding times		Х	X		
2. Blanks					
A. Method blanks		X	X		
B. Trip blanks					X
C. Field blanks					Х
3. Matrix spike (MS) %R				-	Х
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					Х
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		Х		Х	
10. Instrument performance check		Х		Х	
11. Internal standard retention times and areas		Х	X		
12. Initial calibration RRF's and %RSD's		Х		X	
13. Continuing calibration RRF's and %D's					Х
14. Field duplicates RPD					Х
OCs - volatile organic compounds %D - percent differ	ence		R	RF - relative res	ponse factor

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exceptions:

- 1&11. Sample EW-1 had all areas outside QC limits in the original analysis and was reanalyzed outside holding times however all areas were inside QC limits. The reanalysis was reported for EW-1 with all VOC qualified as estimated (J/UJ).
- 2A. 1,2,4-Trichlorobenzene was detected in the method blank. It was not detected in the associated samples and therefore did not impact the usability of the reported sample result.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2221_110909.doc

	Reported		Performance Acceptable		Not
· · · · · · · · · · · · · · · · · · ·	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R		X		X	
9. Post digestive spike sample %R					X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD					X

%R - percent recovery

%D - percent difference

RPD - relative percent difference

# Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 12/23/2009
VALIDATION PERFORMED BY SIGNATURE:	lamp-

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2221_110909.doc

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	November 18, 2009	
Matrix/Number of Samples:	<u>Water/1</u> <u>Trip Blank/0</u>	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
	Mitkem Laboratories, Warwick, RI	

# Analyses: Volatile Organic Compounds (VOCs): OLM4.2

Laboratory Report No:

SH2361

Date:12/10/2009

# ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		Х		Х		
2. Blanks						
A. Method blanks		Х	X			
B. Trip blanks		Х		Х		
C. Field blanks					Х	
3. Matrix spike (MS) %R					X	
4. Matrix spike duplicate (MSD) %R					X	
5. MS/MSD precision (RPD)					X	
6. Laboratory Control Sample (LCS) %R		Х		Х	3	
7. LCS duplicate (LCSD) %R					X	
8. LCS/LCSD precision (RPD)					Х	
9. Surrogate spike recoveries		Х		X		
10. Instrument performance check		Х		X		
11. Internal standard retention times and areas		Х		X		
12. Initial calibration RRF's and %RSD's		Х		X		
13. Continuing calibration RRF's and %D's					X	
14. Field duplicates RPD					X	
DCs - volatile organic compounds %D - percent differ R - percent recovery %RSD - percent re		l deviation		RF - relative resp PD - relative per		

Comments:

Performance was acceptable with the following exception:

2A. 1,2,4-Trichlorobenzene was detected in the method blank. It was not detected in the associated samples and therefore did not impact the usability of the reported sample result.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 12/23/2009
VALIDATION PERFORMED BY SIGNATURE:	1amp

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2361_111809.doc

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Project Name:	Franklin Cleaners
Project Number:	2531-03
Sample Date(s):	November 20, 2009
Matrix/Number	Water/ 6
of Samples:	<u>Trip Blank/1</u>
Analyzing	Mitkem Laboratories, Warwick, RI
Laboratory:	
Analyses:	Volatile Organic Compounds (VOCs): OLM4.2

Laboratory Report No:

SH2387

Date:12/10/2009

# ORGANIC ANALYSES VOCS

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		X	X			
2. Blanks						
A. Method blanks		X	X			
B. Trip blanks	_	X		Х		
C. Field blanks					Х	
3. Matrix spike (MS) %R					X	
4. Matrix spike duplicate (MSD) %R		·		-	Х	
5. MS/MSD precision (RPD)					Х	
6. Laboratory Control Sample (LCS) %R		X		X		
7. LCS duplicate (LCSD) %R					Х	
8. LCS/LCSD precision (RPD)					X	
9. Surrogate spike recoveries		Х		Х		
10. Instrument performance check		Х		X		
11. Internal standard retention times and areas		Х		X		
12. Initial calibration RRF's and %RSD's		X		Х		
13. Continuing calibration RRF's and %D's					X	
14. Field duplicates RPD					Х	
DCs - volatile organic compounds %D - percent differ R - percent recovery %RSD - percent re		deviation		RF - relative resp PD - relative per		

%R - percent recovery %RSD - percent relative standard deviation Comments:

Performance was acceptable with the following exception:

2A. 1,2,4-Trichlorobenzene was detected in the method blank. It was not detected in the associated samples and therefore did not impact the usability of the reported sample result.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 12/23/2009
VALIDATION PERFORMED BY SIGNATURE:	le-pan

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2387_112009.doc

Pages

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Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	November 24, 2009	
Matrix/Number of Samples:	<u>Water/3</u> <u>Trip Blank/0</u>	
Analyzing Laboratory:	Mitkem Laboratories, War	vick, RI
Analyses:	Volatile Organic Compoun Metals: Iron and manganes	<u>ds (VOCs):</u> OLM4.2 e by USEPA SW846 Method 6010
Laboratory Report No:	SH2411	Date:12/10/2009

# ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		Х		X		
2. Blanks						
A. Method blanks		Х		x		
B. Trip blanks					Х	
C. Field blanks					X	
3. Matrix spike (MS) %R					X	
4. Matrix spike duplicate (MSD) %R					X	
5. MS/MSD precision (RPD)					х	
6. Laboratory Control Sample (LCS) %R		Х		Х		
7. LCS duplicate (LCSD) %R					Х	
8. LCS/LCSD precision (RPD)					х	
9. Surrogate spike recoveries		Х		X		
10. Instrument performance check		X		Х		
11. Internal standard retention times and areas		X		X		
12. Initial calibration RRF's and %RSD's		X		Х		
13. Continuing calibration RRF's and %D's		X		X		
14. Field duplicates RPD					• X	
CS - volatile organic compounds %D - percent differ	ence		R	RF - relative res	ponse factor	

%R - percent recovery

%D - percent difference %RSD - percent relative standard deviation RRF - relative response factor RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2411_112409.doc

		Perfor	mance	
Reported		Acce	Acceptable	
No	Yes	No	Yes	Required
	X		X	
	X		X	
				X
	X		X	
	X		X	
				X
	X		X	
	X		X	
				X
				X
				X
				X
				X
		No     Yes       X       X       X       X       X       X       X       X       X       X       X       X       X       X       X       X	ReportedAcceptionNoYesNoXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	No         Yes         No         Yes           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X

%R - percent recovery

%D - percent difference

RPD - relative percent difference

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 12/23/2009
VALIDATION PERFORMED BY SIGNATURE:	for ~ Ru

Project Name:	Franklin Cleaners	
Project Number:	2531-03	-
Sample Date(s):	December 8, 2009	
Matrix/Number of Samples:	<u>Water/ 3</u> Trip Blank/0	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
Analyses:	Volatile Organic Compounds (VOCs Metals: Iron and manganese by USE	
Laboratory Report No:	SH2503	Date:12/31/2009

# ORGANIC ANALYSES VOCS

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		Х		Х		
2. Blanks						
A. Method blanks		Х		X		
B. Trip blanks					X	
C. Field blanks					X	
3. Matrix spike (MS) %R					X	
4. Matrix spike duplicate (MSD) %R					X	
5. MS/MSD precision (RPD)					Х	
6. Laboratory Control Sample (LCS) %R		Х		X		
7. LCS duplicate (LCSD) %R					X	
8. LCS/LCSD precision (RPD)					Х	
9. Surrogate spike recoveries		X		X		
10. Instrument performance check		X		X		
11. Internal standard retention times and areas		X		X		
12. Initial calibration RRF's and %RSD's		Х		Х		
13. Continuing calibration RRF's and %D's		X		Х		
14. Field duplicates RPD					Х	
OCs - volatile organic compounds %D - percent differ	rence		R	RF - relative res	ponse factor	

 VOCs - volatile organic compounds
 %D - percent difference

 %R - percent recovery
 %RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2503_120809.doc

Demonto d		Performance		Not
				Not
No	Yes	No	Yes	Required
	X		X	
	X		X	
				X
	X		X	
	X		X	
				X
-	X		X	
	X		X	
				X
				X
				X
	X		X	
				X
	Repo           No	X X X X X X X X X	Reported     Access       No     Yes     No       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X	Reported     Acceptable       No     Yes     No     Yes       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X       X     X     X

Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 2/9/2010
VALIDATION PERFORMED BY SIGNATURE:	RR-

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2503_120809.doc

2/2

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	December 24, 2009	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
Analyses:	Volatile Organic Compounds (VOCs) Metals: Iron and manganese by USEF	
Laboratory Report No:	SH2638	Date: 1/11/2010

# ORGANIC ANALYSES

Performance Reported Not Acceptable No Yes No Yes Required 1. Holding times Х Х 2. Blanks A. Method blanks Х Х B. Trip blanks Х C. Field blanks Х 3. Matrix spike (MS) %R Х 4. Matrix spike duplicate (MSD) %R Χ Χ 5. MS/MSD precision (RPD) 6. Laboratory Control Sample (LCS) %R Х Х 7. LCS duplicate (LCSD) %R Χ 8. LCS/LCSD precision (RPD) Χ 9. Surrogate spike recoveries Х X 10. Instrument performance check Х Χ 11. Internal standard retention times and areas Х Χ 12. Initial calibration RRF's and %RSD's X Χ 13. Continuing calibration RRF's and %D's Х 14. Field duplicates RPD X VOCs - volatile organic compounds %D - percent difference RRF - relative response factor %R - percent recovery %RSD - percent relative standard deviation RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2638_122409.doc

				Performance	
	Reported		Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					-
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D					X
12. Field duplicates RPD					X

%R - percent recovery

%D - percent difference

RPD - relative percent difference

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 2/9/2010
VALIDATION PERFORMED BY SIGNATURE:	Q-R

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SH2638_122409.doc

2/2

Project Name:	Franklin Cleaners	
Project Number:	2531-03	
Sample Date(s):	January 4, 2010	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	
Analyzing Laboratory:	Mitkem Laboratories, Warwick, RI	
Analyses:	Volatile Organic Compounds (VOC Metals: Iron and manganese by USE	
Laboratory Report No:	SJ0005	Date: 1/19/2010

# **ORGANIC ANALYSES**

VOCS

	Reported		Performance Acceptable		Not
· · ·	No	Yes	No	Yes	Required
1. Holding times		Х		Х	
2. Blanks					
A. Method blanks		Х		X	
B. Trip blanks					Х
C. Field blanks					Х
3. Matrix spike (MS) %R					Х
4. Matrix spike duplicate (MSD) %R		4			Х
5. MS/MSD precision (RPD)					Х
6. Laboratory Control Sample (LCS) %R		X		X	
7. LCS duplicate (LCSD) %R					Х
8. LCS/LCSD precision (RPD)					X
9. Surrogate spike recoveries		Х		X	
10. Instrument performance check		X		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		X		X	
13. Continuing calibration RRF's and %D's		X		Х	
14. Field duplicates RPD					X
DCs - volatile organic compounds %D - percent differ	rence		R	RF - relative resp	ponse factor

%R - percent recovery

%RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SJ0005_010410.doc

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X	Х		
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R					X
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R					X
9. Post digestive spike sample %R					X
10. Duplicate %RPD					X
11. Serial dilution check %D					X
12. Field duplicates RPD					X
R - percent recovery %D - percent differen	nce	RP	D - relative pe	rcent differen	ce

#### Comments:

Performance was acceptable with the following exception:

2A. Manganese was detected in preparation blank and detected in the sample at concentration less than ten times the concentration found in the blank. Therefore, manganese in sample AS was qualified as non-detect (U).

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 2/9/2010
VALIDATION PERFORMED BY SIGNATURE:	Onp

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_SJ0005_010410.doc

Project Name:	Franklin Cleaners aka H	empstead
Project Number:	2531-03	
Sample Date(s):	January 21, 2010	
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0	
Analyzing Laboratory:	TestAmerica Laboratorio	es, Shelton, CT
Analyses:		unds (VOCs): USEPA SW846 Method 8260B ese by USEPA SW846 Method 6010B
Laboratory Report No:	220-11344	Date:2/04/2010

#### **ORGANIC ANALYSES**

VOCS

Report No:

Reported		Performance Acceptable		Not	
No	Yes	No	Yes	Required	
	Х		X		
	Х	X			
				Х	
				Х	
		1		Х	
				X	
				X	
	Х		Х		
				Х	
				Х	
	Х		X		
	Х	1. J. J. J. J. J. J. J. J. J. J. J. J. J.	Х		
	X		Х		
	Х		X		
	Х	Х			
				х	
		No         Yes           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X           X         X	No     Yes     No       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X       X     X	No         Yes         No         Yes           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X         X           X         X </td	

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exceptions:

- 2A. Acetone was detected in the method blank. It was not detected in the associated samples and therefore did not impact the usability of the reported sample results.
- The %Ds were above the QC limit for dichlorodifluoromethane and bromomethane in the 13. continuing calibrations associated with all samples. Dichlorodifluoromethane and bromomethane were not detected in the samples and were qualified as estimated (UJ) in all samples.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_11344_012110.doc

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	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	1
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R		X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Interference check sample %R		X		X	
7. Laboratory control sample %R	×.	X		X	
8. Spike sample %R		X ·		X	
9. Post digestive spike sample %R					X
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X		X	
12. Field duplicates RPD				· ·	X
R - percent recovery %D - percent diffe	erence	RP	D - relative pe	rcent differen	ce

Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/7/2010
VALIDATION PERFORMED BY SIGNATURE:	R-m R-

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_11344_012110.doc

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Project Name:	Franklin Cleaners aka He	mpstead	
Project Number:	2531-03		
Sample Date(s):	February 5, 2010		
Matrix/Number of Samples:	<u>Water/3</u> Trip Blank/0		
Analyzing Laboratory:	TestAmerica Laboratorie	s, Shelton, CT	
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW846 Method 8260B Metals: Iron and manganese by USEPA SW846 Method 6010B		
Laboratory Report No:	220-11469	Date:2/23/2010	

# ORGANIC ANALYSES

vocs

Report No:

· · · · · · · · · · · · · · · · · · ·	Reported		Performance Acceptable		Not
•	No	Yes	No	Yes	Required
1. Holding times		Х		Х	
2. Blanks					
A. Method blanks		Х		Х	
B. Trip blanks					Х
C. Field blanks					Х
3. Matrix spike (MS) %R					Х
4. Matrix spike duplicate (MSD) %R					X
5. MS/MSD precision (RPD)					X
6. Laboratory Control Sample (LCS) %R		Х		X	
7. LCS duplicate (LCSD) %R					X
8. LCS/LCSD precision (RPD)					Х
9. Surrogate spike recoveries		Х		Х	
10. Instrument performance check		Х		X	
11. Internal standard retention times and areas		Х		X	
12. Initial calibration RRF's and %RSD's		Х		Х	
13. Continuing calibration RRF's and %D's		Х		Х	
14. Field duplicates RPD			-		Х
OCs - volatile organic compounds     %D - percent differ       R - percent recovery     %RSD - percent re		deviation		CF - relative resp D - relative per	

Comments:

Performance was acceptable.

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_11469_020510.doc

# **INORGANIC ANALYSES**

METALS

	Reported			mance ptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Preparation and calibration blanks		X		X	
B. Field blanks					X
3. Initial calibration verification %R	-	X		X	
4. Continuing calibration verification %R		X		X	
5. CRDL standard %R		X		X	
6. Interference check sample %R		X		X	
7. Laboratory control sample %R		X		X	
8. Spike sample %R	· · · ·	X		X	
9. Post digestive spike sample %R					Х
10. Duplicate %RPD		X		X	
11. Serial dilution check %D		X			
12. Field duplicates RPD					Х
R - percent recovery %D - percent difference		RP	D - relative pe	rcent differend	e

Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/7/2010
VALIDATION PERFORMED BY SIGNATURE:	No-Pr

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Project Name:	Franklin Cleaners aka Hempstead
Project Number:	2531-03
Sample Date(s):	February 24, 2010
Matrix/Number of Samples:	<u>Water/2</u> <u>Trip Blank/0</u>
Analyzing Laboratory:	TestAmerica Laboratories, Shelton, CT
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW846 Method 8260B

Laboratory	220-11579	Date:3/16/2010
Report No:	220-11379	Date.5/10/2010

# ORGANIC ANALYSES

VOCS

	Reported			rmance eptable	Not	
	No	Yes	No	Yes	Required	
1. Holding times		Х		Х		
2. Blanks						
A. Method blanks		Х	X			
B. Trip blanks						
C. Field blanks						
3. Laboratory Control Sample (LCS) %R		Х		X		
4. Surrogate spike recoveries		Х		X		
5. Field duplicates RPD					Х	
OCs - volatile organic compounds %D - percent diff				RF - relative res		

%R - percent recovery %RSD - percent relative standard deviation

n RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exceptions:

- 2. 1,2,4-Trichlorobenzene was detected in the method blank. 1,2,4-Trichlorobenzene was not detected in the samples and therefore did not impact the usability of the reported sample result.
- 3. Based on laboratory qualifiers, the %R was outside the QC limit for acetone in the LCS associated with all samples. It was not detected in the samples and therefore did not impact the usability of the reported sample result.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/27/2010
VALIDATION PERFORMED BY SIGNATURE:	2 Pmp

Project Name:	Franklin Cleaners aka Hempstead	
Project Number:	2531-03	
Sample Date(s):	February 25, 2010	
Matrix/Number of Samples:	<u>Water/ 5</u> Trip Blank/0	
Analyzing Laboratory:	TestAmerica Laboratories, Shelton, CT	· · ·
Analyses:	Volatile Organic Compounds (VOCs): U	SEPA SW846 Method 8260B
Laboratory Report No:	220-11566	Date:3/15/2010

# ORGANIC ANALYSES

	Reported			rmance ptable	Not	
	No	Yes	No	Yes	Required	
1. Holding times		X		X		
2. Blanks						
A. Method blanks		Х	X			
B. Trip blanks					Х	
C. Field blanks					X	
3. Matrix spike (MS) %R					X	
4. Matrix spike duplicate (MSD) %R					X	
5. MS/MSD precision (RPD)					X	
6. Laboratory Control Sample (LCS) %R		Х	X			
7. LCS duplicate (LCSD) %R					X	
8. LCS/LCSD precision (RPD)					X	
9. Surrogate spike recoveries		Х		X		
10. Instrument performance check		Х		X		
11. Internal standard retention times and areas		Х		X		
12. Initial calibration RRF's and %RSD's		Х		X		
13. Continuing calibration RRF's and %D's		X	X			
14. Field duplicates RPD					X	
DCs - volatile organic compounds %D - percent differ R - percent recovery %RSD - percent rel		deviation		RF - relative resp PD - relative per		

#### Comments:

Performance was acceptable with the following exceptions:

- 2A. Methylene chloride and/or 1,2,4-trichlorobenzene were detected in the method blank. They were not detected in the associated samples and therefore did not impact the usability of the reported sample results.
- 6. The %R was above the QC limit for carbon disulfide in the LCS associated with ASMW-3. The %R was above the QC limit for acetone the LCS associated with ASMW-1, ASMW-2, ASMW-4

J:_HazWaste\2531 (NYSDEC - Franklin Cleaners Site)\Data validation\wat_11566_022510.doc

and ASMW-5. They were not detected in the samples and therefore did not impact the usability of the reported sample result.

13. The %Ds were above the QC limit for dichlorodifluoromethane, bromomethane, 1,2-dibromo-3chloropropane, n-butylbenzene, naphthalene and 1,2,3-trichlorobenznene in the continuing calibrations associated with ASMW-3. The %Ds were above the QC limit for acetone, hexachlorobutadiene, 1,2,4-trichlorobenzene, naphthalene and 1,2,3-trichlorobenznene in the continuing calibrations associated with ASMW-1, ASMW-2, ASMW-4 and ASMW-5. The above compounds were not detected in the associated samples and were qualified as estimated (UJ) in associated samples.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/7/2010
VALIDATION PERFORMED BY SIGNATURE:	an Ru

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Project Name:	Franklin Cleaners aka Hemp	ostead
Project Number:	2531-03	· · · · ·
Sample Date(s):	February 19, 2010	
Matrix/Number	Water/3	
of Samples:	<u>Trip Blank/0</u>	
Analyzing Laboratory:	TestAmerica Laboratories, S	Shelton, CT
· _	Volatile Organic Compound	s (VOCs): USEPA SW846 Method 8260B
Analyses:	Metals: Iron and manganese	by USEPA SW846 Method 6010B
Laboratory Report No:	220-11525	Date:3/05/2010

# **ORGANIC ANALYSES**

VOCS

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		X		Х		
2. Blanks						
A. Method blanks		Х		X		
B. Trip blanks					X	
C. Field blanks					Х	
3. Laboratory Control Sample (LCS) %R		Х		x		
4. Surrogate spike recoveries		X		х		
5. Field duplicates RPD					Х	
OCs - volatile organic compounds %D - percent differ				RF - relative res		

%R - percent recovery

%RSD - percent relative standard deviation

RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exception:

3. Based on laboratory qualifiers %Rs were outside the QC limit for methyl isobutyl ketone, dibromochloromethane and 1,2-dibromo-3-chloropropane in the LCS associated with all samples. They were not detected in the samples and therefore did not impact the usability of the reported sample result.

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# INORGANIC ANALYSES METALS

· · · · · · · · · · · · · · · · · · ·				Perfor	mance	
·		Reported		Acceptable		Not
		No	Yes	No	Yes	Required
1. Holding times			X		X	
2. Blanks						
A. Preparation and calibration	on blanks					Х
B. Field blanks						Х
3. Field duplicates RPD						Х
%R - percent recovery	%D - percent differer	nce	RP	D - relative pe	rcent differend	e .

Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/7/2010
VALIDATION PERFORMED BY SIGNATURE:	Din R-

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Project Name:	Franklin Cleaners aka Hem	pstead
Project Number:	2531-03	
Sample Date(s):	March 4, 2010	
Matrix/Number	Water/3	
of Samples:	<u>Trip Blank/0</u>	
Analyzing	Test America I showtoning	Shakar OT
Laboratory:	TestAmerica Laboratories,	Snelton, CI
	Volatile Organic Compoun	ds (VOCs): USEPA SW846 Method 8260B
Analyses:	Metals: Iron and manganes	e by USEPA SW846 Method 6010B
Laboratory	220-11604	Date:3/12/2010
Report No:	220-11004	Datc. 3/12/2010

# ORGANIC ANALYSES

VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		Х	
2. Blanks					
A. Method blanks		Х	X		
B. Trip blanks				:	Х
C. Field blanks					Х
3. Laboratory Control Sample (LCS) %R		Х	X		
4. Surrogate spike recoveries		Х		Х	
5. Field duplicates RPD					Х
OCs - volatile organic compounds %D - percent dif	ference		R	RF - relative res	ponse factor

 %R - percent recovery
 %RSD - percent relative standard deviation

RRF - relative response factor RPD - relative percent difference

#### Comments:

Performance was acceptable with the following exceptions:

- 2. Based on laboratory qualifiers, acetone was detected in the method blank. Acetone was qualified as non-detect (U) in all samples.
- 3. Based on laboratory qualifiers, the %R was outside the QC limit for acetone in the LCS associated with all samples. It was not detected in the samples and therefore did not impact the usability of the reported sample result.

## INORGANIC ANALYSES METALS

				Perfor	mance	
		Reported		Acceptable		Not
		No	Yes	No	Yes	Required
1. Holding times			X		X	
2. Blanks						
A. Preparation and calibrat	tion blanks					X
B. Field blanks						X
3. Field duplicates RPD						X
6R - percent recovery	%D - percent diffe	erence	RP	D - relative pe	rcent differen	ce

## Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 4/27/2010
VALIDATION PERFORMED BY SIGNATURE:	le ma

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Project Name:	Franklin Cleaners aka Hempstead	
Project Number:	2531-03	
Sample Date(s):	March 18, 2010	
Matrix/Number of Samples:	Water/ 3 (EW-1, EW-2 and AS) Trip Blank/0	
Analyzing Laboratory:	TestAmerica Laboratories, Shelton, CT	· · · · · · · · · · · · · · · · · · ·
Analyses:	Volatile Organic Compounds (VOCs): US Metals: Iron and manganese by USEPA SV	
Laboratory Report No:	220-11738	Date:3/30/2010

## **ORGANIC ANALYSES** VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		Х		x	-
B. Trip blanks					х
C. Field blanks					X
3. Laboratory Control Sample (LCS) %R		Х		Х	
4. Surrogate spike recoveries		Х		X	
5. Field duplicates RPD					X
Cs - volatile organic compounds %R - percent rec	overy		RPD - relative	e percent differen	nce

## Comments:

Performance was acceptable.

#### **INORGANIC ANALYSES** Metals

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		Х		Х	
B. Field blanks					Х
3. Laboratory Control Sample (LCS) %R		X		X	
4. Field duplicates RPD					Х

%R - percent recovery

RPD - relative percent difference

## Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 7/8/2010
VALIDATION PERFORMED BY SIGNATURE:	12-mpi

Project Name:	Franklin Cleaners aka He	mpstead	
Project Number:	2531-03		
Sample Date(s):	April 1, 2010		
Matrix/Number	Water/ 3 (EW-1, EW-2 and	nd AS)	
of Samples:	<u>Trip Blank/0</u>		
Analyzing	Test America I shamtania	Shaltan CT	
Laboratory:	TestAmerica Laboratories, Shelton, CT		
Analyses:		nds (VOCs): USEPA SW846 Method 8260B ese by USEPA SW846 Method 6010	
Laboratory Report No:	220-11845	Date:4/13/2010	

#### **ORGANIC ANALYSES** VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х	1	Х	
2. Blanks					
A. Method blanks		Х		Х	
B. Trip blanks					X
C. Field blanks				-	X
3. Laboratory Control Sample (LCS) %R		Х	X		
4. Surrogate spike recoveries		X		Х	
5. Field duplicates RPD				-	X
OCs - volatile organic compounds %R - percent rec		RPD - relative	e percent differe	nce	

#### Comments:

Performance was acceptable with the following exception:

Based on laboratory qualifiers, the %R was outside the QC limit for dibromochloromethane and 3. bromoform in the LCS associated with all samples. It was not detected in the samples and therefore did not impact the usability of the reported sample result.

## **INORGANIC ANALYSES**

Metals

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		Х		X	
2. Blanks					
A. Method blanks		Х		х	
B. Field blanks					X
3. Laboratory Control Sample (LCS) %R		Х		X	
4. Field duplicates RPD					Х
%R - percent recovery	RPD - re	lative percent of	difference		

%R - percent recovery

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 7/8/2010
VALIDATION PERFORMED BY SIGNATURE:	2 m R

Project Name:	Franklin Cleaners aka Hempstead		
Project Number:	2531-03		
Sample Date(s):	April 15, 2010		
Matrix/Number	Water/ 3 (EW-1, EW-2 an	d AS)	
of Samples:	<u>Trip Blank/0</u>		
Analyzing Laboratory:	TestAmerica Laboratories, Shelton, CT		
Analyses:	<u>Volatile Organic Compounds (VOCs):</u> USEPA SW846 Method 8260B <u>Metals:</u> Iron and manganese by USEPA SW846 Method 6010		
Laboratory Report No:	220-11962	Date:4/28/2010	

#### **ORGANIC ANALYSES** VOCS

	Rep	Reported		Performance Acceptable	
	No	Yes	No	Yes	Required
1. Holding times		Х		Х	
2. Blanks					
A. Method blanks		Х		Х	
B. Trip blanks					X
C. Field blanks					Х
3. Laboratory Control Sample (LCS) %R		Х	X		
4. Surrogate spike recoveries		Х		X	
5. Field duplicates RPD					Х
OCs - volatile organic compounds %R - percent rec	covery		RPD - relative	e percent differe	nce

#### Comments:

Performance was acceptable with the following exception:

Based on laboratory qualifiers, the %R was outside the QC limit for methyl acetate in the LCS 3. associated with all samples. It was not detected in the samples and therefore did not impact the usability of the reported sample result.

## **INORGANIC ANALYSES**

#### Metals

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		Х		Х	
B. Field blanks					Х
3. Laboratory Control Sample (LCS) %R		Х		Х	
4. Field duplicates RPD					Х
%R - percent recovery	RPD - re	lative percent of	difference		

%R - percent recovery

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 7/8/2010
VALIDATION PERFORMED BY SIGNATURE:	enn

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Project Name:	Franklin Cleaners aka Hempstea	d		
Project Number:	2531-03	·······		
Sample Date(s):	April 15, 2010	April 15, 2010		
Matrix/Number of Samples:	Air/2 (ASMW-6 and ASMW-7)			
Analyzing Laboratory:	TestAmerica Laboratories, Knoxville, TN			
Analyses:	Volatile Organic Compounds (VOCs): TO15			
Laboratory Report No:	H0D220416	Date:5/3/2010		

# **ORGANIC ANALYSES**

## VOCS

	Reported		Performance Acceptable		Not
	No	Yes	No	Yes	Required
1. Holding times		X		X	- · · · ·
2. Method blanks		Х		X	
3. Laboratory Control Sample (LCS) %R		Х		X	
4. Surrogate spike recovery		Х		X	
5. Field duplicates RPD					Х

VOCs - volatile organic compounds

%R - percent recovery

## Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 7/8/2010
VALIDATION PERFORMED BY SIGNATURE:	Q-R

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Project Name:	Franklin Cleaners aka Hempstead		
Project Number:	2531-03		
Sample Date(s):	April 30, 2010		
Matrix/Number	Water/ 3 (EW-1, EW-2	2 and AS)	
of Samples:	<u>Trip Blank/0</u>		
Analyzing Laboratory:	TestAmerica Laboratories, Shelton, CT		
Analyses:	Volatile Organic Compounds (VOCs): USEPA SW846 Method 8260B Metals: Iron and manganese by USEPA SW846 Method 6010		
Laboratory Report No:	220-12095	Date:5/11/2010	

# ORGANIC ANALYSES

	Reported		Performance Acceptable		Not
· · · · ·	No	Yes	No	Yes	Required
1. Holding times		X		X	
2. Blanks					
A. Method blanks		X		X	
B. Trip blanks					x
C. Field blanks					X
3. Laboratory Control Sample (LCS) %R		X		X	
4. Surrogate spike recoveries		X		X	
5. Field duplicates RPD					X
Cs - volatile organic compounds %R - percent recovery			RPD - relative	e percent differer	ce

Comments:

Performance was acceptable.

# **INORGANIC ANALYSES**

#### Metals

	Reported		Performance Acceptable		Not	
	No	Yes	No	Yes	Required	
1. Holding times		<b>X</b> .		Х		
2. Blanks						
A. Method blanks		X		X		
B. Field blanks					X	
3. Laboratory Control Sample (LCS) %R		X		X		
4. Field duplicates RPD					Х	

%R - percent recovery

RPD - relative percent difference

## Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 7/8/2010
VALIDATION PERFORMED BY SIGNATURE:	10 R

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Project Name:	Franklin Cleaners aka Hempstead
Project Number:	2531-03
Sample Date(s):	May 11 and 12, 2010
Matrix/Number	Water/7 (ASMW-1 to ASMW-7)
of Samples:	Trip Blank/0
Analyzing Laboratory:	TestAmerica Laboratories, Shelton, CT
Analyses:	Volatile Organic Compounds (VOCs): 40 CFR Part 136 method 624

Laboratory 220-12214 Date:5/25/2010 Report No:

# **ORGANIC ANALYSES**

VOCS

	Rep	orted		rmance eptable	Not
	No	Yes	No	Yes	Required
1. Holding times		X		Х	
2. Blanks					
A. Method blanks		Х		X	
B. Trip blanks					
C. Field blanks	-				
3. Laboratory Control Sample (LCS) %R		Х		X	
4. Surrogate spike recoveries		Х		Х	
5. Field duplicates RPD					X
OCs - volatile organic compounds %R - percent recov	ery		RPD - relative	e percent differen	nce

RPD - relative percent difference

#### Comments:

Performance was acceptable.

VALIDATION PERFORMED BY & DATE:	Donna M. Brown 7/8/2010
VALIDATION PERFORMED BY SIGNATURE:	elR-

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# **APPENDIX E**

# SPDES PERMIT EQUIVALENCY

	TABLE 01651-1	Site No.:	1-30-0	50
		Part 1, Page	_1 of	1
EFFLUENT LIMITATIONS A	AND MONITORING REQUIREMENTS			۰.
During the period beginning	February 1, 2001			
and lasting until	January 31, 2006			

the discharges from the treatment facility to water index number HB-233, Class SC, RECEIVING WATER shall be limited and monitored by the operator as specified below:

7	Discharge Li	mitations			oring Requirements
Outfall Number and Parameter	Daily Avg.	Daily Max.	<u>Units</u>	Measurement Frequency	Sample Type
Outfall 001 - Treated Groundwater	Remediation Dis	charge:			
Flow	Monitor	Monitor	GPD	Continuous	Meter
pH (range)	6.	5 to 8.5	SU	2/Month	Grab
Tetrachloroethene		5	ug/L	2/Month	Grab
1,1 Dichloroethene		10	ug/L	2/Month	Grab
1,1,1 Trichloroethane		10	ug/L	2/Month	Grab
Trichloroethene		10	ug/L	2/Month	Grab
cis 1,2 Dichloroethene		10	ug/L	2/Month	- Grab
Iron		1.0	mg/L	2/Month	Grab
Manganese		1.0	mg/L	2/Month	Grab

#### Additional Conditions:

(1) Discharge is not authorized until such time as an engineering submission showing the method of treatment is approved by the Department. The discharge rate may not exceed the effective or design treatment system capacity. All monitoring data, engineering submissions and modification requests must be submitted to:

Chief - Operation Maintenance and Support Section Bureau of Hazardous Site Control Division of Environmental Remediation NYSDEC 50 Wolf Road Albany, NY 12233-7010

With a copy sent to:

R Schneck, Reg. 1

⁽²⁾ Only site generated wastewater is authorized for treatment and discharge.

- (3) Authorization to discharge is valid only for the period noted above but may be renewed if appropriate. A request for renewal must be received 6 months prior to the expiration date to allow for a review of monitoring data and reassessment of monitoring requirements.
- ⁽⁴⁾ Both concentration (mg/l or ug/l) and mass loadings (lbs/day) must be reported to the Department for all parameters except flow and pH.
- ⁽⁵⁾ Any use of corrosion/scale inhibitors or biocidal-type compounds used in the treatment process must be approved by the department prior to use.
- ⁽⁶⁾ This discharge and administration of this discharge must comply with the attached General Conditions.

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**APPENDIX F** 

## INSTITUTIONAL AND ENGINEERING CONTROL FORM



## Enclosure 1 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



Sit	e No.	130050	Site Details		Box 1	
Sit	e Name Fr	anklin Cleaners				
Site	e Address:	206-208 B, South Franklir	n Street Zip	o Code: 11550		
Cit	y/Town: He	empstead				
Co	unty: Nassa	au				
Cu	rrent Use:	Structure				
Inte	ended Use:					
		Vor	rification of Sit	o Dotoilo	Box 2	
		ver	finication of Sit	e Details	YES	NO
1.	Are the Sit	te Details above, correct?				
	If NO, are	changes handwritten abov	ve or included o	on a separate sheet?		
2.		or all of the site property the mendment since the initial		livided, merged, or undergone n?	a □	
		documentation or evidence included with this certifica		tation has been previously		
3.		federal, state, and/or local e property since the initial/		building, discharge) been issue n?	ed □	
		documentation or evidence included with this certifica		tation has been previously		
4.	Has a cha	nge-of-use occurred since	e the initial/last o	certification?		
		documentation or evidence included with this certifica		tation has been previously		
5.	has any ne		nat assumptions	ram Sites subject to ECL 27-1 made in the Qualitative Expo valid ?		
		the new information or evic included with this Certifica		information has been previou	sly □	
6.	are the as			ram Sites subject to ECL 27-1 sessment still valid (must be	415.7(c), □	
		changes in the assessme	nt included with	this certification?		_
	,	<b>v</b>				

SITE NO. 130050		Box 3
Description of Institutional Control	Control	Certification
	YES	NO
		Box 4
Description of Engineering Control	Control	Certification
	YES	NO
Attach documentation if IC/ECs cannot be certified or why IC/ECs are	e no longer appli	icable.
(Also see instructions)		
Control Description for Site No. 130	050	
ROD calls for:		
No institutional controls		
Engineering Controls:		
<ul> <li>- a SVE System</li> <li>- a groundwater extraction and treatment system for up to 20 years</li> </ul>		
- g		
Control Certification Statement		
For each Institutional or Engineering control listed above, I certify by statements are true:	y checking res	that all of the following
(a) the Institutional Control and/or Engineering Control emplode that the Control was put in-place, or was last approved by		
(b) nothing has occurred that would impair the ability of such environment;	Control, to prot	ect public health and the
(c) nothing has occurred that would constitute a violation or f Management Plan for this Control; and	ailure to comply	with the Site
(d) access to the site will continue to be provided to the Depa including access to evaluate the continued maintenance of the		uate the remedy,
(e) if a financial assurance mechanism is required by the ove mechanism remains valid and sufficient for its intended purpo		

	SITE NO. 13005	<b>50</b>	Box 5
SITE OWNER C certify that all information and s tatement made herein is punish renal Law.		or 3 are true. I understa	and that a false
	at		
print name	print l	ousiness address	
m certifying as		(Own	er or Remedial Party)
r the Site named in the Site De	tails Section of this form		
gnature of Owner or Remedial	Party Rendering Certifica	tion	Date
QUALIFIED EN	VIRONMENTAL PROFE	SSIONAL (QEP) SIGNA	Box 6 TURE
certify that all information and s erein is punishable as a Class "	tatements in Box 4 are tru A" misdemeanor, pursuar	e. I understand that a fa t to Section 210.45 of th	<b>TURE</b> alse statement made e Penal Law.
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