

**Former Lockheed Martin
French Road Facility
Ulrica, New York
Solvent Dock Area
NYSDEC Site #6-20080321-5**

**First Quarter 2016
Corrective Action Progress Report**



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ACRONYMS

DOW	Division of Water
GAC	granular activated carbon
GCTS	groundwater collection and treatment system
ICM	interim corrective measure
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OM&M	operation, monitoring and maintenance
PCE	tetrachloroethene
SGVs	Standards and Guidance Values
SPDES	State Pollutant Discharge Elimination System
SSDS	sub-slab depressurization system
SVI	soil vapor intrusion
TCE	trichloroethene



Purpose

On behalf of Lockheed Martin Corporation (Lockheed Martin), Stantec Consulting Services Inc. (Stantec) has prepared this *First Quarter 2016 Corrective Action Progress Report* for the Solvent Dock Area at the former Lockheed Martin French Road facility in Utica, New York (the Site). This report is required by the October 3, 2008 New York State Department of Environmental Conservation (NYSDEC) Order on Consent (the Order; CO 6-20080321-5), and in Attachment 3-1 (Corrective Action Requirements), Section B.8, of the Order. The following sections summarize activities and information for the First Quarter (January, February and March) of 2016.

1. Summary of Work Completed During the Reporting Period

The following activities were completed during the reporting period:

- Obtained monthly samples of effluent water from the groundwater collection and treatment system (GCTS) for compliance with the existing State Pollutant Discharge Elimination System (SPDES) permit (NY-012-1894). Results were documented in monthly Discharge Monitoring Reports submitted to NYSDEC.
- Performed ongoing operation, monitoring and maintenance (OM&M) of the interim corrective measure (ICM) for groundwater (i.e., the GCTS).
- Performed ongoing OM&M of the ICM for sub-slab soil gas (i.e., the sub-slab depressurization system, or SSDS).
- Completed, during the period January 5 through 7, 2016 the First Quarter 2016 groundwater sampling in accordance with the *Interim Groundwater Monitoring Program*.
- Submitted, on January 15, 2016, to NYSDEC and New York State Department of Health (NYSDOH) the *First Quarter 2016 Corrective Action Progress Report*, and added the document to the public repository at the Utica Library.
- Submitted, on January 15, 2016 to NYSDEC and NYSDOH, the *Supplemental Work Plan for Additional Surface Soil Sampling, Excavation Initial Design Investigation*.
- Provided, for discussion purposes, on January 19, 2016 to NYSDEC and NYSDOH, preliminary draft results of the subsurface investigations for Area 2 and the Pole Barn performed in December 2015.
- Conducted, on January 19, February 19, and March 18, 2016, routine monthly project update conference calls with NYSDEC (S. Saucier) and NYSDOH (S. Karpinski).
- Performed, on January 25, 2016, partial installation of the new vapor monitoring points (VMPs) in the western portions of the building as detailed in the September 8, 2015 *Work Plan for Soil Vapor Intrusion Sampling, Western Portion of Manufacturing Facility*. Due to a safety incident with one of the drilling personnel, the work was halted, corrective measures were taken, and the remaining VMPs were installed on February 24 and 25, 2016. Asbestos-containing floor tiles were removed as necessary in advance of each drilling event, in accordance with OSHA regulations.

- Received on January 21, 2016 from NYSDEC a letter to Lockheed Martin approving the changes to the groundwater monitoring program proposed in a letter from Stantec to NYSDEC in December 2015. The changes included modifying procedures for obtaining field parameter measurements, sampling procedures, and reducing the number of wells included in the sampling based on statistical analysis of historical data.
- Received on January 21, 2016 from NYSDEC a letter to Lockheed Martin approving the *Supplemental Work Plan for Additional Surface Soil Sampling, Excavation Initial Design Investigation*.
- Submitted, on February 24, 2016 to NYSDEC the *Data Summary and Observations, First Quarter 2016 Groundwater Monitoring*.
- Submitted on February 26, 2016 to NYSDEC and NYSDOH the *Supplemental Work Plan for Additional Area 2 Subsurface Soil Sampling, Excavation Initial Design Investigation*.
- Performed, on March 1 and 2, 2016, replacement of the SSDS blower unit and variable frequency drive (VFD), due to occasional electrical issues with these system elements. Operational parameters have remained normal since the change-out.
- Submitted on March 14, 2016, to NYSDEC and NYSDOH the *2015 Annual Site Management Report*, which also contained the following individual annual reports:
 - *SSDS OM&M Performance Report*
 - *GCTS OM&M Performance Report*
 - *Cover System Performance Report*
 - *Groundwater Monitoring Report*
- Received, on March 16, 2016 from ConMed Corporation a letter to NYSDEC providing comments on Stantec's February 26, 2016 *Supplemental Work Plan for Additional Area 2 Subsurface Soil Sampling, Excavation Initial Design Investigation*.
- Performed, on March 8 through March 10, 2016, helium tracer testing on the newly-installed VMPs discussed above. Test results showed the points were not completely sealed. Attempts made at each point to repair or reinstall the seals inside the casings to improve performance were unsuccessful. The VMPs were then rebuilt on March 14 and 15, 2016. Subsequent helium tracer testing exhibited acceptable results at each VMP.
- Performed, on March 21 and 22, 2016 soil vapor intrusion (SVI) sampling in the six newly-installed VMPs. Samples included sub-slab vapor, indoor air and ambient air. A chemical inventory was also performed.

2. Summary of Findings Made During the Reporting Period

The following findings were made during the reporting period:

- Results of first quarter groundwater monitoring indicated that the detected types and distribution of contaminants were similar to those of previous sampling events. Mann-Kendall trend analysis was performed using data from Q1 2016 and the seven previous rounds of sampling. No sudden increases were observed. One statistically-significant

increasing trend was identified in one Objective 1 well: MW-3 for trichloroethene (TCE). Statistically-significant decreasing trends were identified for one Objective 1 well (PZ-8 for tetrachloroethene [PCE]) and one Objective 2 well (MW-21 for vinyl chloride). Two historical maxima were identified at MW-18 for PCE and TCE.

- Groundwater elevations in monitoring wells in the Solvent Dock Area were relatively consistent with historical measurements. In general, the groundwater elevations indicated a higher water table when compared to the previous event but were generally lower than what was observed during the Q1 2015 event. All groundwater elevations were within the historical ranges observed, except for piezometers PZ-5 and PZ-6, both of which exceeded the historical maximum at that location. Groundwater flow continues to reflect the influence of the GCTS.
- The results of the subsurface investigations for Area 2 and the Pole Barn performed in December 2015 indicated that VOC impacts in soil extend beyond the investigation limits in certain areas. NYSDEC and NYSDOH reviewed the preliminary draft results and subsequently requested additional subsurface exploration to expand the area of investigation; accordingly, a Work Plan was submitted proposing additional Geoprobe test borings and soil sampling/analysis. Regulatory review and comment on the Work Plan is underway.

3. Summary of Changes Made During the Reporting Period

- As discussed above, the SSDS blower unit and VFD were replaced on March 1 and 2, 2016.

4. Summary of Contacts Made with Representatives of the Local Community and Public Interest Groups During the Reporting Period

- No interaction occurred with local community or public interest groups during the reporting period.

5. Summary of Problems Encountered During the Reporting Period

- An injury occurred to one of the drilling-contractor personnel during floor slab drilling for new VMP installation. Completion of this task was postponed until corrective measures were made to the drilling methodology. The drilling was then completed without further incident.
- As discussed above, helium tracer testing of the new VMPs indicated inadequate cement and bentonite seal performance. Accordingly, the VMPs were rebuilt; subsequent tracer testing indicated acceptable performance.

6. Changes in Personnel Conducting or Managing the Corrective Measures During the Reporting Period

- No changes in project personnel were made during the reporting period.

7. Summary of Work Planned for the Next Reporting Period

The following activities are scheduled or anticipated for completion during the next reporting period:

- Continue operation and maintenance of the GCTS, including monthly effluent sampling for compliance with the existing SPDES permit and quarterly sampling and monitoring; data to be provided as part of the monthly Discharge Monitoring Reports, and quarterly system OM&M summaries.
- Continue operation and maintenance of the SSDS, including quarterly SSDS sampling and monitoring; data to be provided as part of the quarterly system OM&M summaries.
- Continue monthly project status calls with NYSDEC and NYSDOH.
- As needed and appropriate, continue to provide copies of project documents to the project repository (Utica Public Library) and upload electronic versions to the Lockheed Martin Solvent Dock Archive website.
- Conduct the second quarter groundwater sampling event (April 2015) in accordance with the *Draft Interim Groundwater Monitoring Program* (as amended by Stantec's December 23, 2015 letter to NYSDEC, accepted by NYSDEC on January 21, 2016) and provide a written summary of findings to NYSDEC.
- Prepare and submit to NYSDEC and NYSDOH a report summarizing the results of SVI sampling in the newly-installed VMPs in the western building areas.
- Perform additional surface soil sampling for PCBs and subsurface soil sampling for VOCs in Area 2, in accordance with the Work Plans previously submitted to NYSDEC (detailed above).
- Submit a Draft Environmental Easement package, including a revised Draft Site Management Plan to NYSDEC, NYSDOH, and ConMed for review and comment.
- Initiate procurement activities for selection of new Performing Contractor, to become effective December 1, 2016.

End of Report