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Transmittal Letter

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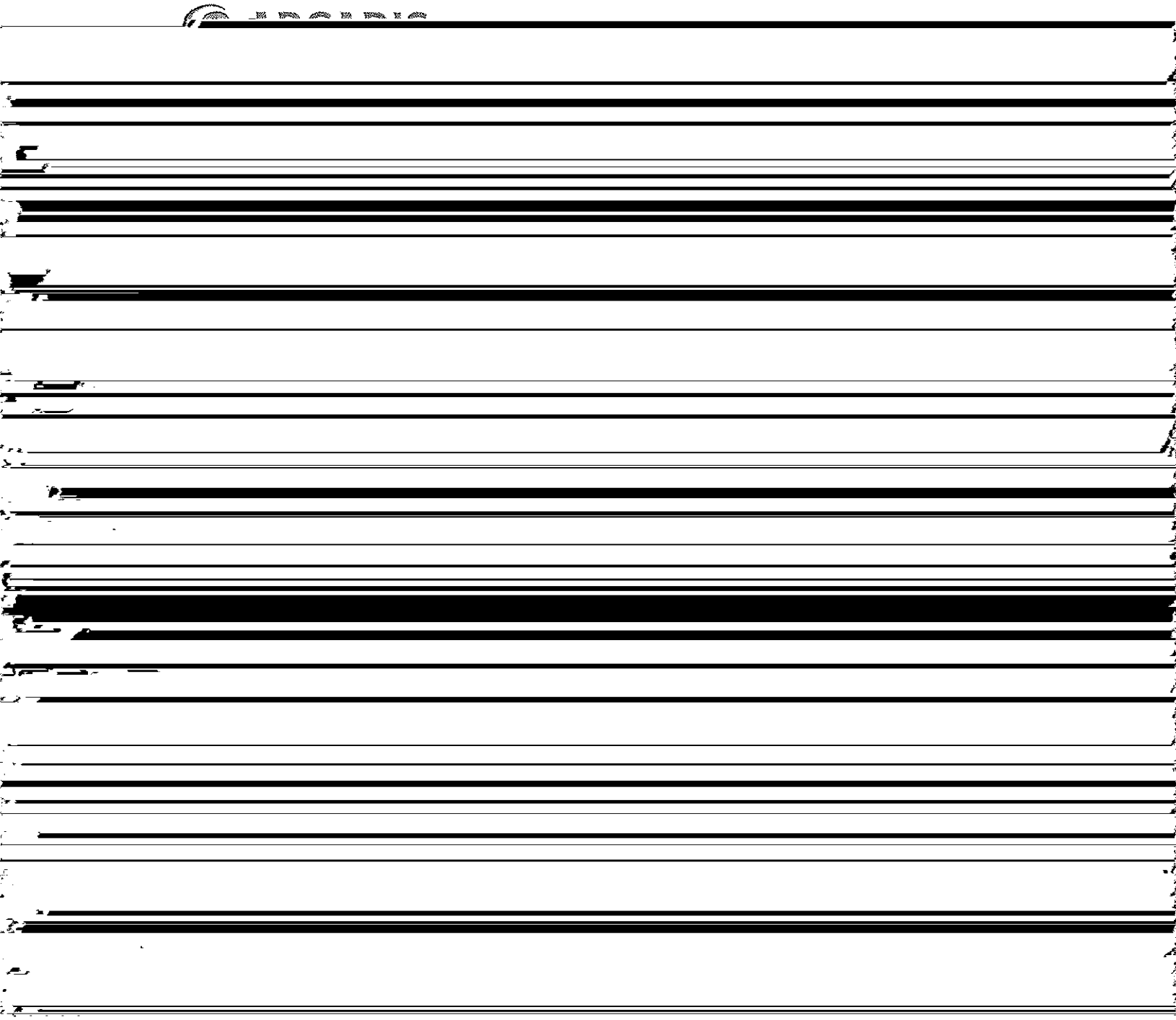

Infrastructure, environment, facilities

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Addendum to the Vapor Intrusion Study Report for the Solvent Dock Area

French Road Facility
Utica, New York

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Figures

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Addendum to the Vapor Intrusion Study Report for the Solvent Dock Area

French Road Facility Utica, New York

1. Introduction

On behalf of Lockheed Martin Corporation (Lockheed Martin), ARCADIS is

[redacted]

this report addendum (Addendum) to the Vapor Intrusion Study Report for the Solvent

EarthTech conducted a second sampling event at two locations (I1 and I4) in March 2006 (EarthTech 2006). The results of the re-sampling event detected similar

TCE at sample location I4. Sample results were submitted to the NYSDEC in a letter

In addition to the ConMed main building, the site reconnaissance also included three

tables are stored, on the southern side of the hallway. A garage door in the stock room opens on the southern side of the building. No chemicals were observed in the stock room or either storage room.

4. Sampling Approach

The 2 October 2007 and 14 and 15 November 2007

5.1 Evaluation of Subslab Soil Gas and Indoor Air Results

Consistent with the Final Guidance, subslab soil gas and indoor air data from the October 2007 and November 2007 sampling events were evaluated using the following steps.

First, concentrations detected in indoor air were compared to applicable NYSDOH

to the subslab soil gas sample, indicating contribution of an indoor source unrelated to soil gas. As noted in the product inventory (Appendix A), TCE is stored in the facility. At AA-13SD, a subslab soil gas sample could not be collected as water was encountered directly below the slab. At all other locations, TCE was generally detected at higher concentrations in subslab soil gas indicating a potential contribution from a source beneath the building, possibly related to groundwater.

Although PCE was detected in 8 out of 19 indoor air samples, all concentrations were

[redacted]

5.1.2 Comparison to Background Concentrations

The constituents detected in indoor air were compared to the generic background indoor air concentrations reported by the U.S. Environmental Protection Agency (USEPA 2001) as part of the building assessment and survey evaluation (BASE) database. The BASE database includes indoor air results from approximately 100 commercial and public office buildings. As a result, these values are expected to significantly underestimate background concentrations at active manufacturing facilities where chemicals may be used as part of normal operations. However, because background data from such facilities is not currently available, the 90th percentile value

- hexane
- m&p-xylene
- o-xylene
- styrene
- toluene

Although these constituents were measured at concentrations greater than conservative background levels, they are not expected to cause unacceptable human

- Monitor
- Monitor/mitigate
- Mitigate

As presented on Table 5, 22 subslab soil gas samples and 18 indoor air samples were collected from 18 locations as part of the October and November 2007 sampling rounds. Subslab soil gas and indoor air results were used together to generate

[redacted]

recommended actions based on the NYSDOH decision matrices. The NYSDOH matrices recommend mitigation at two locations (AA-2SD/VP-2SD and AA-8SD/VP-8SD) based on TCE concentrations. At AA-9SD/VP-SD, the data indicate a background source is present because TCE indoor air concentrations are higher than

[redacted]

16 locations in the ConMed facility and three locations from buildings north of the facility[1]. The sampling was necessary to (i) confirm previous results; (ii) better

[redacted]

building that should be subject to depressurization as part of the planned interim corrective measure for the ConMed facility; and (iv) investigate the quality of soil gas near the northern property boundary. The conclusions of these sampling events are presented below:

- [redacted]

beneath the eastern portion of the manufacturing building. Lockheed Martin will revise the *Work Plan for the Interim Corrective Measure* (ARCADIS 2006) and submit the revised plan to NYSDEC and NYSDOH for review. Upon agency approval, Lockheed Martin will install the full-scale vapor depressurization system.

- ARCADIS is evaluating soil gas quality along the northern perimeter of the main building. The evaluation will include an assessment of the potential for off-site migration of soil gas considering the hydrogeologic conditions and subsurface utilities in the area. The evaluation will be reported to NYSDEC and NYSDOH in the revised plan referenced above.

References

ARCADIS. 2006. Work Plan for the Interim Corrective Measure, Solvent Dock Area,

ARCADIS. 2007a. Vapor Intrusion Study for the Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York. August 10.

ARCADIS. 2007b. Letter to Mr. Larry Rosenmann, New York State Department of

Table 1. Concentrations of Volatile Organic Compounds in Subslab Soil Gas Collected in October and November 2007
Former Lockheed Martin French Road Facility, Utica, New York

[redacted]

Table 1 Concentrations of Volatile Organic Compounds in Subslab Soil Gas Collected in October and November 2007

[redacted]

[redacted]

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[redacted]

[redacted]

Table 2. Concentrations of Volatile Organic Compounds in Indoor Air and Ambient Air Collected in November 2007
Former Lockheed Martin French Road Facility, Utica, New York

Constituent	Sample ID Lab ID Date Units	AA-2SD 111507 24 hour C0711025-024A 11/15/2007 (µg/m^3)	AA-4SD 111507 24 hour C0711025-034A 11/15/2007 (µg/m^3)	AA-8SD 111507 24 hour C0711025-037A 11/15/2007 (µg/m^3)	AA-9SD 111507 24 hour C0711025-028A 11/15/2007 (µg/m^3)

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[redacted]

Table 2. Concentrations of Volatile Organic Compounds in Indoor Air and Ambient Air Collected in November 2007
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Table 3. Summary of Constituents Detected in Subslab Soil Gas and Indoor Air

Table 4. Comparison of Constituents in Indoor Air to NYSDOH Air Guidelines and Background Concentrations
Former Lockheed Martin French Road Facility, Utica, New York

[redacted]

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[redacted]

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Table 5. Evaluation of Potential Mitigation and Monitoring Actions Using NYSDOH Matrices

Table 6 Evaluation of Potential Mitigation and Monitoring Actions Using NYSDOH Matrices

[redacted]

Solvent Dock Area, Former Lockheed Martin French Road Facility, Utica, New York.

[redacted]

[redacted]

[redacted]