

## **Appendix J**

### **Summary of Work Performed and Materials Relied Upon**

The following tasks have been completed during the investigation of the subject property:

1. ERM conducted oversight of ICON's soil and groundwater investigation conducted between January 2019 and March 2020 which included the following:
  - a. Generation of soil conductivity probe logs and/or HPT logs at 26 locations;
  - b. Installation of soil borings and monitoring wells and collection of soil and groundwater samples. ERM collected a split of each ICON soil and groundwater sample where adequate sample volume was provided, and analyzed the split samples for the same list of analytes. ERM also analyzed the soil and groundwater samples for additional analytes including Total Petroleum Hydrocarbon (TPH) fractions, dissolved metals (groundwater only), etc.;
  - c. The soil and groundwater samples were analyzed by Element Materials Technology (Element) in Lafayette, Louisiana, Gulf Coast Analytical Laboratories (GCAL) in Baton Rouge, Louisiana, and Eberline Services (Eberline) in Oak Ridge, Tennessee. During the course of the field work, GCAL was acquired by and incorporated within Pace Analytical (Pace). All four laboratories are Louisiana Environmental Laboratory Accreditation Program (LELAP) accredited laboratories;
  - d. Logging of soils by an ERM scientist and preparation of soil boring logs, which are included in Appendix A;
  - e. Slug testing the EN-1A/EN-1B, EN-4B, EN-12, EN-24, EN-27, EN-28, and EN-30 wells and the results are provided in Appendix C;
  - f. Measurement of water levels in monitoring wells on February 7, 2019 and March 9, 2020.
  - g. Laboratory reports are provided in Appendix F.
  - h. Field notes recorded by ERM personnel during the field activities are provided in Appendix G. Ground level photographs taken by ERM personnel during the field activities, along with logs of the photos, are provided in Appendix H.
2. ERM conducted soil and groundwater investigation activities between May and August 2020 which included the following:
  - a. Installation of soil borings and monitoring wells and collection of soil and groundwater samples;
  - b. The soil and groundwater samples were analyzed by Element, Pace, and Eberline. All three laboratories are Louisiana Environmental Laboratory Accreditation Program (LELAP) accredited laboratories;
  - c. Logging of soils by an ERM scientist and preparation of soil boring logs, which are included in Appendix A;
  - d. Slug testing the MW-1, MW-5, MW-6, MW-7, and DMW-1 wells; and,
  - e. Measurement of water levels in monitoring wells on June 18, 2020 and August 10, 2020.
  - f. Laboratory reports are provided in Appendix F.
  - g. Field notes recorded by ERM personnel during the field activities are provided in Appendix G. Ground level photographs taken by ERM personnel during the field activities, along with logs of the photos, are provided in Appendix H.

3. ERM analyzed the electronic data from the slug tests by importing the water level data into AQTESOLV Version 4.5, a commercially available and widely used software program. The water level displacement data collected during the test were plotted electronically on a logarithmic scale vs. elapsed time on a linear scale. As specified in RECAP Appendix F, the Hvorslev (1951) curve-matching method for confined aquifers was used to calculate the hydraulic conductivity. The well yield was calculated based upon LDEQ's RECAP Appendix F equations.
4. Reviewed and evaluated plaintiff expert reports and other data and documents generated and produced by Plaintiffs' and Defendants.
5. Obtained and reviewed the United States Geological Survey (USGS) topographic maps for the Centerville and Franklin Quadrangles that cover the property and surrounding area.
6. Obtained, mapped, and reviewed soil data from the United States Department of Agriculture (USDA) Natural Resources Conservation System database (<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>).
7. Obtained, mapped, and reviewed underground pipelines utilizing the Rextag Oil & Gas Transportation & Processing Data Set (<https://rextag.com/gis>).
8. Obtained, mapped, and reviewed water well information from the LDNR SONRIS GIS database and LDNR water well files.
9. Obtained, mapped, and reviewed surface water data for the Louisiana Department of Environmental Quality (LDEQ) Drainage Basin Subsegment #LA060501 (Bayou Teche-From Charenton Canal to Wax Lake Outlet) and Subsegment #LA060907 [<http://www.deq.louisiana.gov>].
10. Obtained, mapped and reviewed water quality data from the USGS database: (<http://nwis.waterdata.usgs.gov>).
11. Obtained, geo-referenced, and reviewed numerous historical aerial photographs of the property area. Sources include USGS, Google Earth, Louisiana State University, ArcGIS Online, and documents produced by ICON.
12. Obtained, mapped, and reviewed Light Detection and Ranging (LIDAR) ground surface elevation data from Louisiana State University (<http://atlas.lsu.edu/lidar/>).
13. Obtained and reviewed literature on soils and geology/hydrogeology from the United States Department of Agriculture (USDA), Louisiana Geological Survey (LGS), USGS, and other published references.
14. Obtained, mapped, and reviewed LDEQ aquifer recharge data from Louisiana State University (<http://atlas.lsu.edu/>).
15. Reviewed and consulted the following:
  - a. LDNR Statewide Order 29-B regulations;
  - b. LDEQ RECAP regulations and guidance;
  - c. Louisiana Title 51 Public Health – Sanitary Code Part XII. Water Supplies;
  - d. LDEQ Title 56 Public Works Part I. Water Wells;
  - e. Louisiana Surface Water Quality regulations; and,
  - f. EPA MCLs and SMCLs and Radionuclides Rule.
16. Reviewed expert reports and other documents produced by the plaintiffs' experts.

Data and information gathered and evaluated as part of the above tasks were relied upon for the development of this report. ERM may supplement the opinions presented herein based on the receipt and review of additional information.