VIA EMAIL

Sampling Performance Audit

Hexion Specialty Chemicals, Inc.
(Former Borden site)
Lakeland, Florida
Facility ID# FLD 000 605 519

Audit performed by

Environmental Assessment Section
Bureau of Laboratories

Audit Date
1/31/07

DEP Auditor
Michael Blizzard
Environmental Assessment Section

Sampling Team Personnel and Affiliations
Bruce McKinnes
QORE Property Sciences

Field Performance Audit Location (Site Location)
5004 North Combee Road
Lakeland, FL 33805

Field Sampling Locations Audited (Records for Sample Points or Sources)
MW-1, MW-1D, MW-2, MW-3, MW-3D, MW-8, MW-10

Wells Sampled During Audit:
MW-10, MW-1, MW-1D

Analytes Sampled (Groups)
Al, Fe, Tl (Metals)
Color, TDS (Physical & Aggregate Properties)
EPA 8260 target analytes (VOCs)

Audit Findings of Deficiency
REVISED

1. The tubing placement in MW-1D was 1 foot below the bottom of the screened interval. *FOLLOW-UP TO CONSULTANT'S RESPONSE: This finding is retracted. The notations for the affected depth measurements should be more clearly indicated to reflect any calculations for the riser (stick-up) height.*
2. At MW-3, the pump tubing was placed at the very bottom of (instead of well within) the screened interval. *FOLLOW-UP TO CONSULTANT'S RESPONSE: This finding is retracted. The notations for the affected depth measurements should be more clearly indicated to reflect any calculations for the riser (stick-up) height.*
3. A dry purge was performed at MW-3D without any additional technique or equipment modification as prescribed in DEP SOP FS 2212, section 3.4. *FOLLOW-UP TO CONSULTANT'S RESPONSE: There is no record of a conversation between the auditor and the sampler concerning this finding, as the sampling for this well was not audited on 1/31/07. The auditor's comment is based on evaluation of the submitted Ground Water Sampling Log. The documented flow rate of the purge (303 – 379 mL/min) did not meet the SOP requirement of 100 mL/min or less. The tubing diameter is presumed to be the same as used on the other wells (0.25 in.) which suggests that no attempt to purge the well with smaller-bore tubing had been considered.*
4. There is no unequivocal documentation link between the instrument identification on the Field Instrument Calibration Records and the field testing measurements recorded on the Ground Water Sampling Logs. The link must be assumed from the measurement and calibration dates recorded on the respective documents. *FOLLOW-UP TO CONSULTANT'S RESPONSE: The linkage requirement is contained in DEP SOP FD 4100, section 3. Users are cautioned that the example forms as listed in FD 9000 do not include all of the documentation requirements (see discussion in FD 9000).*
5. For the digital temperature Field Instrument Calibration Records, it is unclear whether the recorded temperatures are the readings from the instrument or the NIST traceable standard thermometer. The verification of the instrument calibration cannot be evaluated from the records without the complementary set of readings (see DEP SOP FT 1400, sections 2.2.2 and 4.2.6). *FOLLOW-UP TO CONSULTANT'S RESPONSE: The response does not address the finding.*
6. Trip blanks were not provided for the sampling kit on the day of the audit. Degreasing solvents and fuel sources were prevalent on-site due to truck repair operations, and both fuel and solvent odors were noted. *FOLLOW-UP TO CONSULTANT'S RESPONSE: Corrective action has been indicated by the consultant.*
7. Some of the purge stabilization measurements for specific conductance and turbidity fell outside of the quantitative calibration brackets for the respective meters (see DEP SOP FT 1000, section 2.1.5 definition). *FOLLOW-UP TO CONSULTANT'S RESPONSE: This finding is retracted. The auditor mistook the units recorded because of handwriting.*
8. The following deficiencies were noted when the sampler filled the VOC vials at one or more wells (see DEP SOPs FS 2004 and FS 2221, section 1.1.1). *FOLLOW-UP TO CONSULTANT'S RESPONSE: Corrective action has been indicated by the consultant.*
    a. Vials were filled with a vertical stream of sample from the reversed pump flow (rather than at an angled orientation to the container wall), which allowed some agitation and splashing of the samples.
    b. At MW-10, replicate sample vials were opened all at once before filling began and the vials remained uncapped until all vials were filled and capped together. To cap the vials, three caps were filled with sample water from the pump stream and used to finish the filling of each vial to a convex meniscus.
    c. At MW-1D, the vial caps were removed prior to withdrawing the pump tubing from the well. One replicate vial was capped with a bubble >5mm diameter (maximum size allowed for an acceptable sample).
    d. At MW-1, the withdrawn tubing was reinserted into the well to pump enough water to fill the second half of the third replicate VOC vial. *NOTE FOR CONSULTANT'S RESPONSE:*

Reinsertion of sampling tubing is prohibited when sampling from within the screened interval. See DEP SOP FS 2221, section 1.1.1.

9. At MW-10, filled containers were placed on the dirt before packing into the ice chest. *FOLLOW-UP TO CONSULTANT'S RESPONSE: Corrective action has been indicated by the consultant.*
10. Filled sample containers were placed on top of or against the side of a bag of ice in the ice chest. Vials from another well were placed on top of the previous VOC sample vials stored in the chest. One color/TDS sample bottle was placed on top of another. These practices did not allow for maximum chilling of the individual sample containers to occur as fast as possible by complete submersion in un-bagged ice. *FOLLOW-UP TO CONSULTANT'S RESPONSE: Corrective action has been indicated by the consultant.*