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Date:  
October 10, 2016

Arcadis Project No.:  
B0060013.0019

Subject:  
**Progress Report – Third Quarter 2016  
National Starch & Chemical Company Superfund Site, Salisbury, NC**

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Arcadis is submitting this Progress Report to meet the requirements of paragraph 14 of executed Unilateral Administrative Orders (UAO) on the subject site. This Progress Report is prepared and submitted on a quarterly basis, as agreed to by the United States Environmental Protection Agency (USEPA). The Progress Report: a) documents the actions taken in the last three months to achieve compliance with the Consent Decree (CD); b) includes summaries of results of sampling data received or generated in the previous three months; c) identifies work plans or other deliverables required by the CD that were completed and submitted during the previous three months; d) describes all actions forecasted to be performed over the next three months and construction progress, including a Gantt chart for achieving the CD requirements; e) provides an update on the overall schedule for the project, including percentage completed and efforts to address any delays; f) includes any modifications to work plans or schedules proposed to or approved by EPA; and g) describes activities completed in accordance with the Community Relations Plan.

The following actions have taken place since the last progress report:

- Completed the Draft Preliminary Engineering Report for Groundwater Treatment System upgrade. The draft report was issued internally on July 25, 2016.
- The 2015 Site Monitoring Report was submitted to the EPA and the State of North Carolina on July 25, 2016.
- Continued operation of the groundwater extraction system at IWB-1, located in the OU3 area, at a rate of approximately 9 gpm from July through the end of September. The extraction pump operated 24 hrs/day, 5 days/week (not including holidays). Operations are suspended at 5 pm on Fridays and resume the following

## MEMO

Monday. The total volume extracted for the third quarter of 2016 was 732,037 gallons. The most recent sample result (September 1, 2016) for the IWB-1 groundwater indicated a DCA concentration of 820 µg/L.

- Implemented the transducer study and tracer test per the Work Plan submitted on August 8, 2016 and the Revised Work Plan and Response to Comments submitted on September 2, 2016.

The following sampling data has been received since the last progress report:

- The OU4 SVE system effluent was sampled in July, and August 2016. The results indicated total volatile organics detected at concentrations of 3 parts per million per volume (ppmv) and 8 ppmv, respectively.
- July, and September IWB-1 sampling. The results indicated DCA concentrations of 105 µg/L (July 2016), and 820 µg/L (September 2016), respectively.
- Initial dye sampling results for the tracer study conducted in OU1.

The following work plans and other submittals have been completed and submitted since the last progress report:

- 2015 Site Monitoring Report was submitted on July 25, 2016
- Single Well Tracer Test and Transducer Study Work Plan submitted to the EPA on August 8, 2016. The tracer test and transducer study were proposed to evaluate the potential for offsite migration south and west of the NS-31 well cluster near the southern property boundary.
- Notice of Intent to operate injection wells (NS-31) submitted to the North Carolina Department of Environmental Quality (NCDEQ), Division of Water Resources of on August 8, 2016.
- Response to Comments on the August 8, 2016 Single-Well Tracer and Transducer Study was submitted to EPA Region IV on September 2, 2016.

The following actions are forecast to be completed during the 4th quarter 2016:

- Complete the transducer study and tracer test.
- Continue operation of the OU3/OU4 North Production Area remediation system.
- Continue operation of OU3 extraction well IWB-1 and the groundwater pretreatment system.

The following sampling activities are being proposed for the 4<sup>th</sup> quarter 2016:

- Monthly sampling of groundwater from OU3 extraction well IWB-1
- Quarterly (October) air sampling associated with the OU3/OU4 North Production Area remediation system.
- Annual Site Wide Groundwater Event in December 2016.

The following is the updated Gantt chart for the project:

- Updated Project Schedule included in this progress report. The schedule has been edited to add the transducer study and tracer test activities.

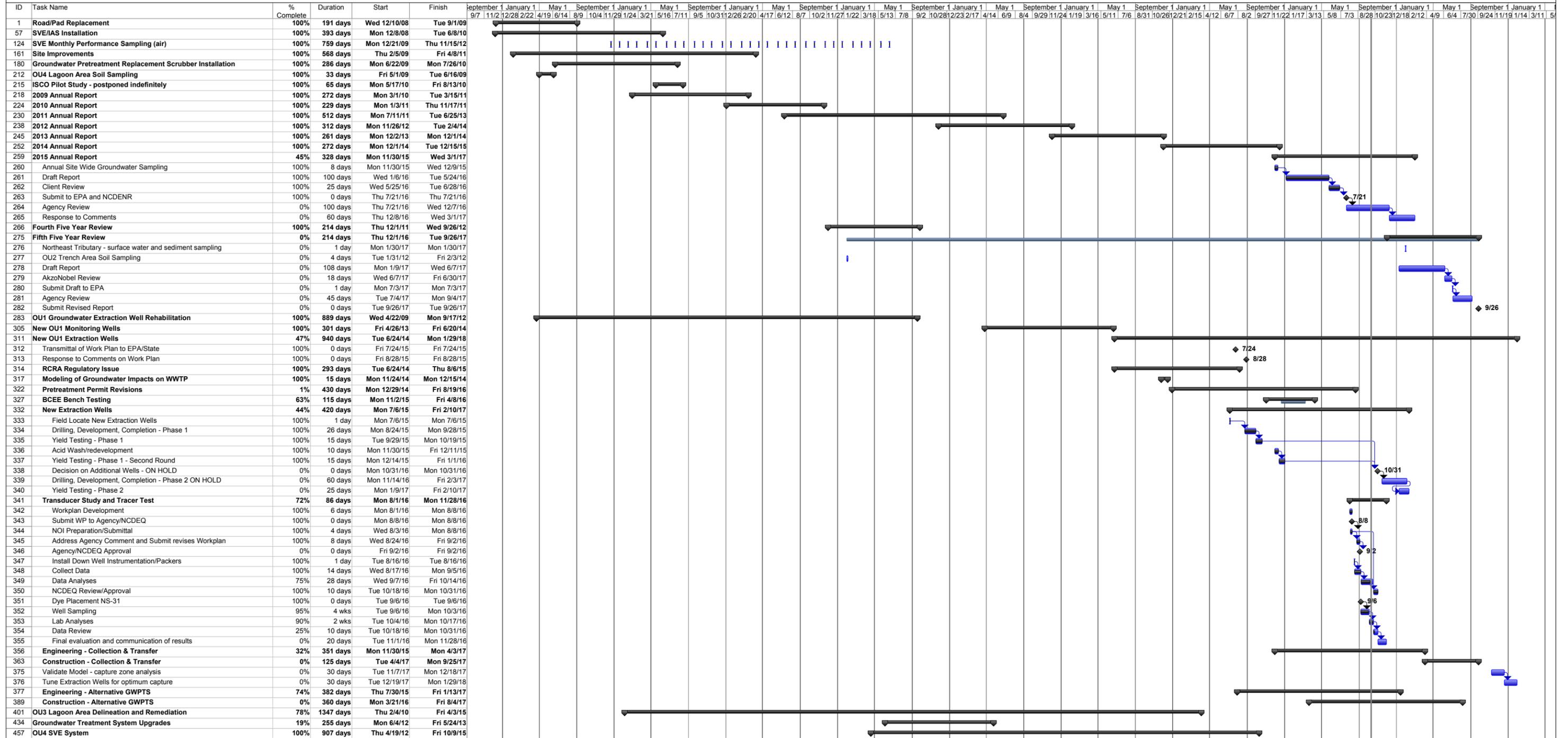
The following are requested modifications to work plans or schedules submitted to the EPA:

- None

The following describes activities completed in accordance with the support of EPA's Community Relations Plan:

- No activities have been requested.

# Site-Wide Environmental Schedule NSCC Superfund Site - Salisbury, NC



Project: Master Schedule\_060812.mxp Date: Mon 10/10/16

Task: [Blue bar] Milestone: [Diamond] Project Summary: [Grey bar] External Milestone: [Grey bar with diamond] Inactive Milestone: [Grey bar with diamond]

Split: [Dotted bar] Summary: [Grey bar] External Tasks: [Grey bar with arrow] Inactive Task: [Grey bar] Inactive Summary: [Grey bar]

Manual Task: [Green bar] Manual Summary Rollup: [Green bar] Manual Summary: [Light blue bar] Duration-only: [Grey bar]

Start-only: [Blue bar] Finish-only: [Blue bar]

Progress: [Blue bar] Deadline: [Green arrow]



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