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January 15, 2016

Ms. Dianne Thomas
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Subject: 4th Quarter 2015 Progress Update
Engineered Controls International, LLC (ECI)
1239 Rock Creek Dairy Road
Whitsett, Guilford County, North Carolina
Docket No. 14-SF-383

Dear Ms. Thomas:

On behalf of ECI, ERM NC, Inc. (ERM) has prepared this quarterly status update of activities for the 4th quarter of 2015 at the ECI – Whitsett, North Carolina site. During the reporting period, ERM completed the following activities:

- Submitted a *Remedial Investigation Report (*ERM November 6, 2015*)*.
- Completed a comprehensive groundwater monitoring event and evaluated groundwater data to provide a current Site Conceptual Model (Tables 1 through 4).
- Following the passing of House Bill 765, ERM prepared a *Draft Risk Based Closure Decision Analysis Tool* for the RP to make an informed decision of the path forward.

Progress is proceeding in a manner to achieve the mandatory work phase completion deadlines set out in 15A NCAC 13C .0302(h). Certification statements for the Remediating Party and RSM are attached.

If you have any questions regarding this project, please contact me at (704) 541-8345.

Sincerely,

Edward B. Hollifield, P.G.
Project Manager

Cc: Jimmy McCandies – Engineered Controls International, LLC
Peter McGrath – Moore & Van Allen, PLLC
Sarah Broughel – Choate, Hall & Stewart, LLP
Tom Wilson, P.G. RSM – ERM NC, Inc.

**TABLE 1. MONITOR WELL CONSTRUCTION AND GROUNDWATER ELEVATION SUMMARY - ECI WHITSETT FACILITY - WHITSETT, NORTH CAROLINA**

| Well ID | Installation Date | Northing | Easting | Date Abandoned | Drilling Method | Well Type | Diameter/ Material/ Casing | Monitored Bedrock Aquifer Zone | Surface Casing Depth (ft bls) | Total Depth (ft bls) | Screen Interval (ft bls) | Land Surface Elevation (ft msl) | Measuring Point Elevation TOC (ft msl) | Elevation Top of Screen (ft msl) | Elevation Bottom of Screen (ft msl) | Depth to Water (bmp) | Ground water Elevation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | November 2015 | |
| *Monitor Wells* | | | | | | | | | | | | | | | | | |
| MW-1 | 10/24/12 | 839039.6600 | 1823013.6100 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 25 | 74 | 27 - 73.5 | 632.28 | 631.72 | 605.28 | 558.78 | 34.51 | 597.21 |
| DW-1 | 06/05/14 | 839034.9680 | 1823011.0730 | NA | HSA/AR | III | 6" outer casing / 2" inner casing | Middle | 75 | 113 | 103 - 113 | 632.55 | 632.24 | 529.554 | 519.554 | 34.22 | 598.02 |
| DW-1D | 09/29/14 | 839037.9400 | 1823007.4600 | NA | HSA/AR | III | 6" outer casing / 2" inner casing | Deep | 125 | 175 | 155 - 175 | 631.95 | 631.73 | 476.95 | 456.95 | 53.29 | 578.44 |
| MW-2 | 10/24/12 | 838806.0700 | 1823291.8600 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 25 | 39 | 29 - 38.5 | 628.30 | 627.91 | 599.3 | 589.8 | 13.40 | 614.51 |
| MW-3 | 10/24/12 | 838554.1500 | 1823114.3100 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 25 | 50 | 40 - 49.5 | 633.28 | 632.97 | 593.28 | 583.78 | 10.58 | 622.39 |
| MW-4 | 10/24/12 | 838798.6900 | 1822882.6500 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 30 | 60 | 40 - 59.5 | 635.38 | 635.03 | 595.38 | 575.88 | 24.70 | 610.33 |
| MW-5 | 08/16/13 | 838654.9200 | 1822798.9900 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 20 | 40 | 20 - 39.5 | 624.78 | 624.59 | 604.78 | 585.28 | 17.64 | 606.95 |
| MW-6 | 08/16/13 | 838810.5200 | 1822749.5000 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 22 | 55 | 30 - 54.5 | 621.90 | 621.49 | 591.9 | 567.4 | 16.30 | 605.19 |
| MW-7 | 08/16/13 | 838928.6100 | 1822668.6900 | NA | HSA/AR | | 4" outer casing / 2" inner casing | Upper | 24 | 60 | 30 - 59.5 | 616.60 | 616.33 | 586.6 | 557.1 | 19.63 | 596.70 |
| MW-8 | 08/16/13 | 839033.8400 | 1822748.8700 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 15 | 40 | 20 - 39.5 | 623.01 | 622.71 | 603.01 | 583.51 | 17.42 | 605.29 |
| MW-9 | 08/16/13 | 839109.9700 | 1823001.0000 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 30 | 60 | 40 - 59.5 | 629.75 | 629.39 | 589.75 | 570.25 | 31.89 | 597.50 |
| MW-10 | 08/16/13 | 839093.5700 | 1823168.9500 | NA | HSA/AR | III | 4" outer casing / 2" inner casing | Upper | 33 | 45 | 33 - 44.5 | 628.42 | 628.19 | 595.42 | 583.92 | 19.75 | 608.44 |
| MW-11 | 05/29/14 | 838888.8190 | 1822991.6100 | NA | HSA/Core | III | 4" outer casing / 2" inner casing | Upper | 30 | 68.5 | 45 - 60 | 635.92 | 635.69 | 590.916 | 575.916 | 32.52 | 603.17 |
| MW-12 | 06/04/14 | 839068.7490 | 1823329.7560 | NA | HSA/AR | III | 6" outer casing / 2" inner casing | Upper | 30 | 46 | 36 - 46 | 621.63 | 621.35 | 585.627 | 575.627 | 13.69 | 607.66 |
| MW-13 | 09/26/14 | 839315.5750 | 1822846.8330 | NA | HSA/AR | III | 6" outer casing / 2" inner casing | Middle | 31 | 90 | 80 - 90 | 624.30 | 623.94 | 544.3 | 534.3 | 10.91 | 613.03 |
| MW-14 | 07/10/15 | 839109.6880 | 1822503.3870 | NA | HSA/AR | III | 6" outer casing / 2" inner casing | Middle | 34 | 72 | 60 - 70 | 588.07 | 587.85 | 528.071 | 518.071 | 8.39 | 579.46 |
| MW-14D | 07/09/15 | 839119.8640 | 1822494.0070 | NA | HSA/AR | III | 6" outer casing / 2" inner casing | Deep | 91 | 140 | 125 - 135 | 587.44 | 587.21 | 462.439 | 452.439 | 2.28 | 584.93 |
| MW-15 | 07/16/15 | 839026.1840 | 1822918.0120 | NA | HSA/AR | II | 1-in PVC | Upper | -- | 42 | 30 - 40 | 631.06 | 630.82 | 601.062 | 591.062 | 21.91 | 608.91 |
| MW-15D | 07/16/15 | 839026.1840 | 1822918.0120 | NA | HSA/AR | II | 1-in PVC | Middle | -- | 123 | 105 - 120 | 631.06 | 630.85 | 526.062 | 511.062 | 28.50 | 602.35 |
| MW-16 | 07/14/15 | 838910.2280 | 1822964.7570 | NA | HSA/Core | II | 1-in PVC | Upper | -- | 42 | 36 - 41 | 635.94 | 635.72 | 599.939 | 594.939 | 29.49 | 606.23 |
| DW-16 | 07/14/15 | 838910.2280 | 1822964.7570 | NA | HSA/Core | II | 1-in PVC | Middle | -- | 80 | 74 - 79 | 635.94 | 635.71 | 561.939 | 556.939 | 35.61 | 600.10 |
| DW-16D | 07/14/15 | 838910.2280 | 1822964.7570 | NA | HSA/Core | II | 1-in PVC | Middle | -- | 118.5 | 109 - 118.5 | 635.94 | 635.72 | 527.439 | 517.439 | 35.94 | 599.78 |
| MW-17 | 07/08/15 | 838924.9700 | 1823017.6780 | NA | HSA/Core | II | 1-in PVC | Upper | -- | 51 | 45 - 50 | 635.93 | 635.69 | 590.933 | 585.933 | 26.90 | 608.79 |
| DW-17 | 07/08/15 | 838924.9700 | 1823017.6780 | NA | HSA/Core | II | 1-in PVC | Middle | -- | 80 | 74 - 79 | 635.93 | 635.70 | 561.933 | 556.933 | 36.35 | 599.35 |
| DW-17D | 07/08/15 | 838924.9700 | 1823017.6780 | NA | HSA/Core | II | 1-in PVC | Middle | -- | 113 | 106 - 111 | 635.93 | 635.70 | 529.933 | 524.933 | 35.96 | 599.74 |
| *Pilot Test Wells* | | | | | | | | | | | | | | | | | |
| AS-1 | 11/18/14 | | | | HSA/Core | II | 2-in PVC | Middle | -- | 64 | 54 - 64 | 636.00 | | | | 35.74 | -- |
| SVE-1 | 11/12/14 | | | | HSA/Core | II | 4-in PVC | Upper | -- | 29 | 9 - 29 | 636.00 | | | | NM | -- |
| OB-1 | 11/20/14 | | | | HSA/Core | II | a: 1-in PVC | Upper | -- | 30 | 10 - 30 | 636.00 | | | | 27.11 | -- |
| (a & b) | | | | | | | b: 1-in PVC | Middle | -- | 73 | 58 - 73 | 636.00 | | | | 35.99 | -- |
| OB-2 | 11/20/14 | | | | HSA/Core | II | a: 1-in PVC | Upper | -- | 30 | 10 - 30 | 636.00 | | | | 26.66 | -- |
| (a & b) | | | | | | | b: 1-in PVC | Middle | -- | 78 | 63 - 78 | 636.00 | | | | 35.97 | -- |

***Notes:***

1. All measurements in feet
2. Groundwater depth measured from top of casing
3. Elevations are measured based on vertical datum NAVD88 (Geoid 2012)
4. All wells constructed of 2-inch PVC
5. Ft bls = Feet below measuring point (top of PVC casing)
6. HSA = Hollow stem auger drilling method
7. AR = Air Hammer

**Bedrock Aquifer Zones:**

- Upper
- Middle
- Deep

**TABLE 2. HYDRAULIC GRADIENT SUMMARY - ECI WHITSETT FACILITY - WHITSETT, NORTH CAROLINA**

***Vertical Hydraulic Gradients***

| Well Designation | 11-Nov-15 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Land Surface Elevation (ft ASL) | Depth to Water (ft) | Head Measurement Location Elevation* (relative ft ASL) | Head Elevation (ft) | Head Change (ft) | Mid-Point Length Change (ft) | Hydraulic Gradient (ft/ft) | Up/ Down |
| MW-1 | 632.28 | 34.51 | 582.03 | 597.77 | -0.56 | 57.48 | -0.0098 | Up |
| DW-1 | 632.55 | 34.22 | 524.55 | 598.33 | | | | |
| DW-1 | 632.55 | 34.22 | 524.55 | 598.33 | 19.67 | 57.60 | 0.3415 | Down |
| DW-1D | 631.95 | 53.29 | 466.95 | 578.66 | | | | |
| MW-14 | 588.07 | 8.39 | 523.07 | 579.68 | -5.48 | 65.63 | -0.0835 | Up |
| MW-14D | 587.44 | 2.28 | 457.44 | 585.16 | | | | |
| MW-15 | 631.06 | 21.91 | 596.06 | 609.15 | 6.59 | 77.50 | 0.0850 | Down |
| MW-15D | 631.06 | 28.50 | 518.56 | 602.56 | | | | |
| MW-16 | 635.94 | 29.49 | 597.44 | 606.45 | 6.12 | 38.00 | 0.1611 | Down |
| DW-16 | 635.94 | 35.61 | 559.44 | 600.33 | | | | |
| DW-16 | 635.94 | 35.61 | 559.44 | 600.33 | 0.33 | 37.00 | 0.0089 | Down |
| DW-16D | 635.94 | 35.94 | 522.44 | 600.00 | | | | |
| MW-17 | 635.93 | 26.90 | 588.43 | 609.03 | 9.45 | 29.00 | 0.3259 | Down |
| DW-17 | 635.93 | 36.35 | 559.43 | 599.58 | | | | |
| DW-17 | 635.93 | 36.35 | 559.43 | 599.58 | -0.39 | 32.00 | -0.0122 | Up |
| DW-17D | 635.93 | 35.96 | 527.43 | 599.97 | | | | |

**Notes:**

(-) vertical gradient represents upward groundwater flow

(+) vertical gradient represents downward groundwater flow

* The head measurement location is the mid-point between the top and bottom of the well screen in cases of a submerged screen and the mid-point between the water table elevation and the bottom of the well screen in cases where the water table intersects the well screen.

***Horizontal Hydraulic Gradient - Upper-Bedrock Aquifer***

| Well Designation | 11-Nov-15 | | | | | |
|---|---|---|---|---|---|---|
| | Reference Elevation (ft ASL) | Depth to Water (ft) | Head Elevation (ft) | Head Change (ft) | Distance Change (ft) | Hydraulic Gradient (ft/ft) |
| MW-4 | 635.03 | 24.70 | 610.33 | 7.16 | 140.00 | 0.0511 |
| MW-11 | 635.69 | 32.52 | 603.17 | | | |
| MW-11 | 635.69 | 32.52 | 603.17 | 5.96 | 153.67 | 0.0388 |
| MW-1 | 631.72 | 34.51 | 597.21 | | | |
| MW-11 | 635.69 | 32.52 | 603.17 | 5.67 | 72.52 | 0.0782 |
| MW-9 | 629.39 | 31.89 | 597.50 | | | |
| MW-9 | 629.39 | 31.89 | 597.50 | 18.04 | 500.00 | 0.0361 |
| MW-14 | 587.85 | 8.39 | 579.46 | | | |
| | | | | | **Average Hydraulic Gradient** | **0.0510** |

***Seepage Velocity Calculation***

| Slug Test and Aquifer Test Analysis Summary | | | |
|---|---|---|---|
| Monitoring Well | Aquifer | Hydraulic Conductivity | |
| | | (cm/sec) | (ft/day) |
| MW-4 | Upper Bedrock | 1.353E-05 | 0.038 |
| MW-4 | Upper Bedrock | 2.088E-05 | 0.059 |
| MW-9 | Upper Bedrock | 7.562E-06 | 0.021 |
| MW-9 | Upper Bedrock | 4.876E-06 | 0.014 |
| MW-10 | Upper Bedrock | 2.256E-04 | 0.639 |
| MW-10 | Upper Bedrock | 1.381E-04 | 0.391 |
| MW-10 | Upper Bedrock | 1.687E-04 | 0.478 |
| MW-11 | Upper Bedrock | 1.210E-04 | 0.343 |
| MW-11 | Upper Bedrock | 1.251E-04 | 0.355 |
| MW-11 | Upper Bedrock | 1.155E-04 | 0.327 |
| MW-11 | Upper Bedrock | 1.208E-04 | 0.342 |
| | **Geometric Mean for Upper Bedrock:** | **5.408E-05** | **0.153** |

***Saprolite aquifer seepage velocity = Ki/n*** $_e$

where:

K is hydraulic conductivity (geometric mean for the primary flowpath)

i = horizontal hydraulic gradient (average of values presented above)

$n_e$ = effective porosity (range estimated 0.10 to 0.25 for the primary flow

***Seepage Velocity Range (Upper Bedrock Aquifer) =***

| | | | |
|---|---|---|---|
| = (0.15) (0.051) / (0.25) = | | 3.13E-02 | ft/day |
| = (0.15) (0.051) / (0.10) = | | 7.83E-02 | ft/day |
| Range of | 25% | 11.42 | ft/yr |
| porosity | 10% | 28.56 | ft/yr |

***Seepage Velocity Range of 11 to 29 ft/yr***

**TABLE 3. SUMMARY OF HISTORICAL GROUNDWATER RESULTS FOR VOCs, SVOCs & TPH - ECI WHITSETT FACILITY - WHITSETT, NORTH CAROLINA**

| Sample ID | Date | VOCs - Method 5035A/8260B (µg/L) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total VOCs | Acetone | Bromodichloromethane | 2-Butanone (MEK) | Chloroethane | Chloroform | Chloromethane (Methyl chloride) | 1,1-Dichloroethene | 1,2-Dichloroethane | cis-1,2-Dichloroethene | Ethylbenzene | Methyl tertiary butyl ether (MTBE) | Tetrachloroethene | Toluene | Trichloroethene | Xylenes (total) | 1,4-Dioxane |
| **NC 2L Groundwater** | | **NE** | **6000** | **0.6** | **4000** | **3000** | **70** | **5** | **350** | **0.4** | **70** | **600** | **20** | **0.7** | **600** | **3** | **500** | **3** |
| MW-1 | 11/11/15 | 51.16 | 2 J | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | 0.36 J | 45 | <1.0 | <1.0 | <1.0 | <1.0 | **5.8** | <1.0 | NA |
| MW-1 (DUP-1) | 11/11/15 | 53.7 | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 47 | <1.0 | <1.0 | <1.0 | <1.0 | **6.7** | <1.0 | NA |
| DW-1 | 11/11/15 | 42 | 1.9 J | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 20 | <1.0 | <1.0 | <1.0 | <1.0 | **22** | <1.0 | NA |
| DW-1D | 11/11/15 | 31.7 | 4.2 J | <1.0 | <10 | <2.0 | <1.0 | 0.25 BJ | <1.0 | <1.0 | 2.7 | <1.0 | <1.0 | <1.0 | <1.0 | **29** | <1.0 | NA |
| MW-2 | 11/12/15 | BDL | <20 | <1.0 | <10 | <2.0 | <1.0 | 0.24 BJ | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA |
| MW-3 | 11/12/15 | BDL | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA |
| MW-4 | 11/12/15 | 15.38 | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.38 J | <1.0 | <1.0 | <1.0 | <1.0 | **15** | <1.0 | NA |
| MW-5 | 11/12/15 | 0.3 | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.3 J | <1.0 | <1.0 | NA |
| MW-6 | 11/12/15 | 0.78 | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.39 J | <1.0 | 0.39 J | NA |
| MW-7 | 11/12/15 | BDL | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA |
| MW-8 | 11/12/15 | BDL | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA |
| MW-9 | 11/11/15 | 9.31 | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.71 J | <1.0 | <1.0 | <1.0 | <1.0 | **8.6** | <1.0 | NA |
| MW-10 | 11/11/15 | 11.35 | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.35 J | <1.0 | <1.0 | <1.0 | <1.0 | **11** | <1.0 | NA |
| MW-11 | 11/13/15 | 2200 | <400 | <20 | <200 | <40 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | <20 | **2200** | <20 | NA |
| MW-11 (DUP-2) | 11/13/15 | 2180 | <400 | <20 | <200 | <40 | <20 | <20 | <20 | **80** | <20 | <20 | <20 | <20 | <20 | **2100** | <20 | NA |
| MW-12 | 11/11/15 | BDL | 3 J | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA |
| MW-13 | 11/12/15 | BDL | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA |
| MW-14 | 11/11/15 | BDL | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA |
| MW-14D | 11/11/15 | BDL | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | NA |
| MW-15 | 11/11/15 | 0.96 | <20 | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.96 J | <1.0 | NA |
| MW-15D | 11/11/15 | 7.98 | 4.9 J | <1.0 | <10 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.79 J | <1.0 | 0.39 J | <1.0 | <1.0 | **6.8** | <1.0 | NA |
| MW-16 | 11/12/15 | 281.7 | <100 | <5.0 | <50 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | 1.7 J | <5.0 | <5.0 | <5.0 | <5.0 | **280** | <5.0 | NA |
| DW-16 | 11/12/15 | 142.42 | 14 J | <1.0 | <10 | <2.0 | 7.3 | <1.0 | 0.43 J | <1.0 | 0.95 J | <1.0 | <1.0 | 0.59 J | 0.45 J | **140** | <1.0 | NA |
| DW-16D | 11/12/15 | 44.51 | 21 | <1.0 | <10 | <2.0 | 14 | <1.0 | <1.0 | <1.0 | 2.5 | <1.0 | <1.0 | 0.4 J | 0.61 J | **41** | <1.0 | NA |
| MW-17 | 11/12/15 | 62.56 | 3.3 J | <1.0 | <10 | <2.0 | 0.38 J | <1.0 | <1.0 | <1.0 | 0.38 J | <1.0 | <1.0 | 0.53 J | 0.65 J | **61** | <1.0 | NA |
| DW-17 | 11/12/15 | 172.89 | 49 | <1.0 | <10 | <2.0 | 21 | <1.0 | 0.58 J | <1.0 | 1.3 | <1.0 | <1.0 | 0.58 J | 0.43 J | **170** | <1.0 | NA |
| DW-17D | 11/12/15 | 12.65 | 25 | 0.39 J | <10 | <2.0 | 23 | <1.0 | <1.0 | <1.0 | 0.67 J | <1.0 | <1.0 | 0.33 J | 0.65 J | **11** | <1.0 | NA |
| OB-1A | 11/13/15 | 25000 | <10000 | <500 | <5000 | <1000 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | <500 | **25000** | <500 | NA |
| OB-1B | 11/13/15 | 955.8 | 47 J | <5.0 | <50 | <10 | <5.0 | <5.0 | 2 J | <5.0 | 2 J | <5.0 | <5.0 | **1.8 J** | <5.0 | **950** | <5.0 | NA |
| OB-2A | 11/13/15 | 7300 | <1000 | <50 | <500 | <100 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | **7300** | <50 | NA |
| OB-2B | 11/13/15 | 371.7 | <100 | <5.0 | <50 | <10 | 2.3 J | <5.0 | <5.0 | <5.0 | 1.7 J | <5.0 | <5.0 | <5.0 | <5.0 | **370** | <5.0 | NA |

***Notes:***
Only detected compounds are listed.
Groundwater criteria are NCAC 2L Standards
BDL: Below Laboratory Detection Limit; NA: Not Analyzed; NE: Not Established
VOCs: Volatile organic compounds; SVOCs: Semi-Volatile organic compounds; TPH: Total Petroleum Hydrocarbons

µg/L = micrograms per liter; J = estimated value greater than the method detection limit but less than the reporting limit
*Comparing GRO results to groundwater quality standard for petroleum aliphatic carbon fraction class (C5-C8)
**Comparing DRO results to groundwater quality standard for petroleum aliphatic carbon fraction class (C19-C36)
**Bold** values exceed NC2L Standards

**TABLE 4. SUMMARY OF NATURAL ATTENUATION PARAMETERS - ECI WHITSETT FACILITY - WHITSETT, NORTH CAROLINA**

| Monitoring Well ID | Sample Date | Iron µg/l | Manganese, Dissolved µg/l | Nitrogen, Nitrate mg/l | Nitrogen, Nitrite mg/l | Sulfate mg/l | Sulfite mg/l | Total Organic Carbon mg/l | pH | Specific Conductivity (uS/cm) | Dissolved Oxygen (mg/L) | Temperature (˚C) | Oxidation Reduction Potential (mV) | Turbidity (mV) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ideal Requirements for Natural Attenuation | | >1 | increasing | <1 | <1 | <20 | <20 | >20 | 5 to 9 | (Purge Stabilization Parameter) | <1 | >20 (Microbial Activity Slows at Lower Temperatures | <50 | (Purge Stabilization Parameter) |
| MW-1 | 11/11/15 | 5.2 | 0.48 | 0.052 H | <0.020 H | 48 | <1.0 | 0.87 J | 6.67 | 654 | 0.47 | 19.10 | -14.7 | NA |
| DUP-1 | 11/11/15 | NA | NA | NA | NA | NA | | NA | NA | NA | NA | NA | NA | NA |
| DW-1 | 11/11/15 | 1.3 | 0.091 | 0.065 H | <0.020 H | 47 | <1.0 | 3.5 | 9.32 | 444.4 | 0.5 | 18.80 | -47 | -- |
| DW-1D | 11/11/15 | NA | NA | NA | NA | NA | NA | NA | 8.95 | 981 | | | | -- |
| MW-2 | 11/12/15 | NA | NA | NA | NA | NA | NA | NA | 10.47 | 540.4 | 0.38 | 18.10 | -37.2 | -- |
| MW-3 | 11/12/15 | 0.2 | 0.0047 J | 2 H | <0.020 H | 30 | <1.0 | 0.64 J | 6.69 | 243.1 | 2.73 | 19.50 | 116.3 | -- |
| MW-4 | 11/12/15 | NA | NA | NA | NA | NA | NA | NA | | | | | | |
| MW-5 | 11/12/15 | NA | NA | NA | NA | NA | | NA | 6.28 | 491 | 0.66 | 16.20 | 142.9 | -- |
| MW-6 | 11/12/15 | NA | NA | NA | NA | NA | | NA | 6.95 | 796 | 0.45 | 17.70 | -22.2 | -- |
| MW-7 | 11/12/15 | NA | NA | NA | NA | NA | | NA | 7.43 | 807 | 0.24 | 18.00 | -85.9 | |
| MW-8 | 11/12/15 | NA | NA | NA | NA | NA | | NA | 6.81 | 418 | 0.19 | 17.70 | 33.4 | -- |
| MW-9 | 11/11/15 | 14 | 0.5 | 0.26 H | <0.020 H | 80 | <1.0 | 1.1 | 6.3 | 635 | 0.5 | 18.10 | 15.9 | -- |
| MW-10 | 11/11/15 | <0.10 | 0.022 | 2.4 H | <0.020 H | 27 | <1.0 | 0.22 J | 6.84 | 464.9 | 0.25 | 19.80 | 10.4 | -- |
| MW-11 | 11/13/15 | 1900 | 27 | 0.29 H | <0.020 H | 65 | <1.0 | 4.5 | 6.7 | 641 | 1.2 | 19.70 | 74.2 | -- |
| DUP-2 | 11/13/15 | NA | NA | NA | NA | NA | | NA | NA | NA | NA | NA | NA | NA |
| MW-12 | 11/11/15 | NA | NA | NA | NA | NA | | NA | 10.47 | 662 | 3.66 | 20.90 | -95.2 | -- |
| MW-13 | 11/12/15 | NA | NA | NA | NA | NA | NA | NA | 7.49 | 760 | 0.54 | 19.40 | 22.9 | -- |
| MW-14 | 11/11/15 | 0.07 J | 0.14 | 0.41 H | <0.020 H | 47 | 1 | 0.83 J | 7.68 | 708 | 0.82 | 17.90 | -13.5 | -- |
| MW-14D | 11/11/15 | 0.24 | 0.48 | 0.073 H | <0.020 H | 77 | <1.0 | 13 | 7.37 | 768 | 0.32 | 17.20 | -197.1 | -- |
| MW-15 | 11/11/15 | 0.18 | 0.12 | 1.9 H | <0.020 H | 59 | <1.0 | 0.72 J | 6.52 | 476.5 | 0.24 | 21.20 | 21.4 | -- |
| MW-15D | 11/11/15 | NA | NA | NA | NA | NA | NA | NA | 7.84 | 654 | 1.4 | 19.30 | -166.1 | -- |
| MW-16 | 11/12/15 | NA | NA | NA | NA | NA | NA | NA | 8.48 | 575 | 0.39 | 22.70 | -138.9 | -- |
| DW-16 | 11/12/15 | NA | NA | NA | NA | NA | NA | NA | 7.99 | 522.6 | 0.44 | 20.40 | -219.6 | -- |
| DW-16D | 11/12/15 | NA | NA | NA | NA | NA | NA | NA | 10.31 | 363.8 | 0.59 | 20.30 | -107.3 | -- |
| MW-17 | 11/12/15 | 0.78 | 0.54 | 4.8 H | 0.11 H | 72 | 1 | 2.9 | 6.61 | 744 | 0.76 | 22.60 | 11.3 | -- |
| DW-17 | 11/12/15 | 0.32 | 0.27 | 0.021 H | <0.020 H | 32 | <1.0 | 36 | 1.07 | 549.2 | 1.79 | 20.00 | 198.9 | -- |
| DW-17D | 11/12/15 | 1.2 | 0.24 | <0.020 H | <0.020 H | 43 | 1 | 120 | 7.1 | 521.6 | 0.8 | 20.00 | -157.4 | -- |
| OB-1A | 11/13/15 | NA | NA | NA | NA | NA | NA | NA | 6.9 | 736 | 2.96 | 20.20 | 16.7 | -- |
| OB-1B | 11/13/15 | NA | NA | NA | NA | NA | NA | NA | 7.37 | 732 | 0.78 | 19.90 | -223.5 | -- |
| OB-2A | 11/13/15 | NA | NA | NA | NA | NA | NA | NA | 6.95 | 660 | 2.4 | 20.30 | -22.9 | -- |
| OB-2B | 11/13/15 | NA | NA | NA | NA | NA | NA | NA | 7.1 | 639 | 1.12 | 19.80 | -145.7 | -- |

***Notes:***

NA = Not applicable

Highlighted values indicate positive conditions for Natural Attenuation

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 1 OF 2

IHSB SITE NAME Engineered Controls International - Whitsett (Docket No. 14-SF-383, NONCD0002903)

DATE & NAME OF DOCUMENT January 15, 2016 4th Quarter 2015 Progress Report

TYPE OF SUBMITTAL (circle all that apply): Report, Work plan, Work Phase Comp. Statement, Schedule Change

## REMEDIATING PARTY DOCUMENT CERTIFICATION STATEMENT (.0306(B)(2))

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Mr. Jimmy McCandies
Name of Remediating Party

Jimmy McCandies
Signature of Remediating Party

1-11-15
Date

**NOTARIZATION**

North Carolina (Enter State)

Alamance COUNTY

I, Patricia T. Hill, a Notary Public of said County and State, do hereby certify that Jimmy McCandies did personally appear and sign before me this day, produced proper identification in the form of personally known was duly sworn or affirmed, and declared that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certification is true and accurate, and he or she then signed this Certification in my presence.

WITNESS my hand and official seal this 11 day of January, 2016.

Patricia T. Hill
Notary Public (signature)

(OFFICIAL SEAL)

My commission expires: 2-7-17

OFFICIAL SEAL
PATRICIA T. HILL
Notary Public - North Carolina
ALAMANCE COUNTY
My Commission Expires

Patricia T. Hill

*Document Certification Form No. DC - I*
*(Revised 8/11)*

REC PROGRAM DOCUMENT CERTIFICATION FORM - PAGE 2 OF 2
IHSB SITE NAME Engineered Controls International - Elon (Docket No. 13-SF-367, NONCD0002904)
DATE & NAME OF DOCUMENT January 15, 2016 4th Quarter 2015 Progress Report
TYPE OF SUBMITTAL (circle all that apply) Report, Work plan, Work Phase Comp. Statement, Schedule Change

## REGISTERED SITE MANAGER CERTIFICATION OF SIGNATURES

As the Registered Environmental Consultant for the Site for which this filing is made, I certify that the signatures included herewith are genuine and authentic original handwritten signatures and/or true, accurate, and complete copies of the genuine and authentic original handwritten signatures of the persons who purport to sign for this filing. I further certify that I have collected through reliable means the originals and/or copies of said signatures from the persons authorized to sign for this filing who, in fact, signed the originals thereof. Those persons and I understand and agree that any copies of signatures have the same legally binding effect as original handwritten signatures, and I certify that any person for whom I am submitting a copy of their signature has provided me with their express consent to submit said copy. Additionally, I certify that I am authorized to attest to the genuineness and authenticity of the signatures, both originals and any copies, being submitted herewith and that by signing below, I do in fact attest to the genuineness and authenticity of all the signatures, both originals and copies, being submitted for this filing.

Tom Wilson, PG, RSM
Name of Registered Site Manager

Thomas M Wilson
Signature of Registered Site Manager

1-15-2016
Date

## REGISTERED SITE MANAGER DOCUMENT CERTIFICATION STATEMENT (.0306(b)(1))

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act N.C.G.S. 130A-310, et seq, and the remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Thomas M Wilson
Name of Registered Site Manager

Thomas M Wilson
Signature of Registered Site Manager

1-15-2016
Date

### NOTARIZATION

North Carolina (Enter State)

Mecklenburg COUNTY

I, Debra C Pressley, a Notary Public of said County and State, do hereby certify that Thomas M Wilson did personally appear and sign before me this day, produced proper identification in the form of NCDL, was duly sworn or affirmed, and declared that, he or she is the duly authorized environmental consultant of the remediating party of the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certifications is true and accurate, and he or she then signed these Certifications in my presence.

WITNESS my hand and official seal this 15 day of January, 2016

Debra C Pressley
Notary Public (signature)

(OFFICIAL SEAL)

My commission expires: 10/27/2017

DEBRA C PRESSLEY
Notary Public
North Carolina
Union County

*Document Certification Form No. DC - II*
*(Revised 8/11)*