

# Analytical Summary Report

Analysis Method: 7196A

ANALYST: Indiana

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY: apatel

Run Number: LB94856

pH Meter ID: WC pH Meter-1

| Reagent/Standard                      | Lot/Log # |
|---------------------------------------|-----------|
| Calibration Std. hexchrome 0.1 ppm    | WP63930   |
| Calibration Std. hexchrome 0.05 ppm   | WP63929   |
| 5N sulfuric acid                      | WP61786   |
| Calibratation STD HexaChrome 1 PPM    | WP63932   |
| Calibratation STD Hexa Chrome 0.5 PPM | WP63931   |
| calibration std. hexchrome 0.01 ppm   | WP63927   |
| calibration std. hexchrome 0 ppm      | WP63926   |
| Hexavalent Chromium ICV Std.          | WP63933   |
| Hexavalent Chromium CCV Std           | WP63935   |
| hexavalent chromium color reagent     | WP63914   |
| HNO3 Hex-Chrome, 5M                   | WP61785   |
| Calibration std Hexachrome, 0.025ppm  | WP63928   |

Intercept: 0.0004

Slope: 0.7688

Regression: 0.999967

| Seq | Lab ID | True Value (mg/l) | DF | Initial Vol (ml/gm) | Final Vol (ml) | pH HN03 | pH H2SO4 | Absorb. at 540 |       | Absorbance Difference | Anal Date  | Anal Time |
|-----|--------|-------------------|----|---------------------|----------------|---------|----------|----------------|-------|-----------------------|------------|-----------|
|     |        |                   |    |                     |                |         |          | Backgrnd       | Color |                       |            |           |
| 1   | CAL1   | 0                 | 1  | 100                 | 100            |         | 2.10     | 0.000          | 0.000 | 0.000                 | 04/24/2018 | 15:00     |
| 2   | CAL2   | 0.01              | 1  | 100                 | 100            |         | 1.86     | 0.000          | 0.008 | 0.008                 | 04/24/2018 | 15:00     |
| 3   | CAL3   | 0.025             | 1  | 100                 | 100            |         | 2.14     | 0.000          | 0.017 | 0.017                 | 04/24/2018 | 15:01     |
| 4   | CAL4   | 0.05              | 1  | 100                 | 100            |         | 2.46     | 0.000          | 0.038 | 0.038                 | 04/24/2018 | 15:01     |
| 5   | CAL5   | 0.1               | 1  | 100                 | 100            |         | 1.78     | 0.000          | 0.079 | 0.079                 | 04/24/2018 | 15:02     |
| 6   | CAL6   | 0.5               | 1  | 100                 | 100            |         | 1.81     | 0.000          | 0.389 | 0.389                 | 04/24/2018 | 15:02     |
| 7   | CAL7   | 1                 | 1  | 100                 | 100            |         | 2.17     | 0.000          | 0.767 | 0.767                 | 04/24/2018 | 15:03     |



# Analytical Summary Report

Analysis Method: 7196A

ANALYST: Indiana

Parameter: Hexavalent Chromium

SUPERVISOR REVIEW BY: apatel

Run Number: LB94856

pH Meter ID: WC pH Meter-1

| Seq | Lab ID          | True Value (mg/l) | DF | Initial Vol (ml/gm) | Final Vol (ml) | pH HN03 | pH H2SO4 | Absorb. at 540 |       | Absorbance Difference | Result | Anal Date  | Anal Time |
|-----|-----------------|-------------------|----|---------------------|----------------|---------|----------|----------------|-------|-----------------------|--------|------------|-----------|
|     |                 |                   |    |                     |                |         |          | Backgrnd       | Color |                       |        |            |           |
| 1   | ICV             | 0.5               | 1  | 100                 | 100            |         | 1.70     | 0.000          | 0.390 | 0.390                 | 0.507  | 04/24/2018 | 15:03     |
| 2   | ICB             |                   | 1  | 100                 | 100            |         | 1.88     | 0.000          | 0.000 | 0.000                 | -0.001 | 04/24/2018 | 15:04     |
| 3   | CCV1            | 0.5               | 1  | 100                 | 100            |         | 2.03     | 0.000          | 0.390 | 0.390                 | 0.507  | 04/24/2018 | 15:04     |
| 4   | CCB1            |                   | 1  | 100                 | 100            |         | 1.67     | 0.000          | 0.000 | 0.000                 | -0.001 | 04/24/2018 | 15:05     |
| 5   | PB108565BL      |                   | 1  | 2.53                | 100            | 7.13    | 1.55     | 0.000          | 0.000 | 0.000                 | -0.001 | 04/24/2018 | 15:05     |
| 6   | PB108565BS      | 20                | 1  | 2.51                | 100            | 7.20    | 2.33     | 0.000          | 0.370 | 0.370                 | 0.481  | 04/24/2018 | 15:06     |
| 7   | J2504-01        |                   | 1  | 2.50                | 100            | 7.04    | 2.29     | 0.017          | 0.017 | 0.000                 | -0.001 | 04/24/2018 | 15:06     |
| 8   | J2511-01        |                   | 1  | 2.51                | 100            | 7.69    | 1.72     | 0.009          | 0.009 | 0.000                 | -0.001 | 04/24/2018 | 15:07     |
| 9   | J2511-01DUP     |                   | 1  | 2.55                | 100            | 7.55    | 1.86     | 0.008          | 0.008 | 0.000                 | -0.001 | 04/24/2018 | 15:07     |
| 10  | J2511-01MSPre   | 40                | 2  | 2.50                | 100            | 7.71    | 2.42     | 0.011          | 0.348 | 0.337                 | 0.438  | 04/24/2018 | 15:08     |
| 11  | J2511-01MS2Ins  | 1284              | 40 | 2.52                | 100            | 7.92    | 1.63     | 0.007          | 0.610 | 0.603                 | 0.784  | 04/24/2018 | 15:08     |
| 12  | J2511-01MS3Post | 40                | 2  | 2.51                | 100            | 7.16    | 2.17     | 0.013          | 0.355 | 0.342                 | 0.444  | 04/24/2018 | 15:09     |
| 13  | J2511-03        |                   | 1  | 2.52                | 100            | 7.33    | 2.30     | 0.007          | 0.007 | 0.000                 | -0.001 | 04/24/2018 | 15:09     |
| 14  | J2522-01        |                   | 1  | 2.54                | 100            | 7.46    | 1.90     | 0.017          | 0.026 | 0.009                 | 0.011  | 04/24/2018 | 15:10     |
| 15  | CCV2            | 0.5               | 1  | 100                 | 100            |         | 1.74     | 0.000          | 0.390 | 0.390                 | 0.507  | 04/24/2018 | 15:10     |
| 16  | CCB2            |                   | 1  | 100                 | 100            |         | 2.41     | 0.000          | 0.000 | 0.000                 | -0.001 | 04/24/2018 | 15:11     |
| 17  | J2522-02        |                   | 1  | 2.51                | 100            | 7.20    | 2.39     | 0.018          | 0.047 | 0.029                 | 0.037  | 04/24/2018 | 15:11     |
| 18  | J2522-03        |                   | 1  | 2.53                | 100            | 7.31    | 1.88     | 0.013          | 0.026 | 0.013                 | 0.016  | 04/24/2018 | 15:12     |
| 19  | J2522-04        |                   | 1  | 2.51                | 100            | 7.57    | 1.63     | 0.044          | 0.330 | 0.286                 | 0.371  | 04/24/2018 | 15:12     |
| 20  | J2522-05        |                   | 1  | 2.52                | 100            | 7.60    | 1.94     | 0.050          | 0.059 | 0.009                 | 0.011  | 04/24/2018 | 15:13     |
| 21  | J2522-06        |                   | 1  | 2.54                | 100            | 7.78    | 2.18     | 0.008          | 0.066 | 0.058                 | 0.075  | 04/24/2018 | 15:13     |
| 22  | PB108564BL      |                   | 1  | 2.53                | 100            | 7.20    | 2.23     | 0.000          | 0.000 | 0.000                 | -0.001 | 04/24/2018 | 15:14     |
| 23  | PB108564BS      | 20                | 1  | 2.55                | 100            | 7.31    | 1.90     | 0.000          | 0.367 | 0.367                 | 0.477  | 04/24/2018 | 15:14     |
| 24  | J2151-07        |                   | 1  | 2.51                | 100            | 7.05    | 1.78     | 0.010          | 0.010 | 0.000                 | -0.001 | 04/24/2018 | 15:15     |
| 25  | J2151-09        |                   | 1  | 2.50                | 100            | 7.60    | 2.25     | 0.013          | 0.013 | 0.000                 | -0.001 | 04/24/2018 | 15:15     |
| 26  | J2151-11        |                   | 1  | 2.52                | 100            | 7.77    | 2.32     | 0.016          | 0.016 | 0.000                 | -0.001 | 04/24/2018 | 15:16     |
| 27  | CCV3            | 0.5               | 1  | 100                 | 100            |         | 2.40     | 0.000          | 0.391 | 0.391                 | 0.508  | 04/24/2018 | 15:16     |
| 28  | CCB3            |                   | 1  | 100                 | 100            |         | 1.93     | 0.000          | 0.000 | 0.000                 | -0.001 | 04/24/2018 | 15:17     |
| 29  | J2151-13        |                   | 1  | 2.53                | 100            | 7.61    | 2.06     | 0.011          | 0.011 | 0.000                 | -0.001 | 04/24/2018 | 15:17     |
| 30  | J2508-01        |                   | 1  | 2.55                | 100            | 7.54    | 2.17     | 0.023          | 0.023 | 0.000                 | -0.001 | 04/24/2018 | 15:18     |
| 31  | J2508-05        |                   | 1  | 2.50                | 100            | 7.30    | 2.33     | 0.049          | 0.049 | 0.000                 | -0.001 | 04/24/2018 | 15:18     |
| 32  | J2508-09        |                   | 1  | 2.52                | 100            | 7.53    | 1.87     | 0.053          | 0.053 | 0.000                 | -0.001 | 04/24/2018 | 15:19     |
| 33  | J2508-13        |                   | 1  | 2.51                | 100            | 7.41    | 2.08     | 0.042          | 0.042 | 0.000                 | -0.001 | 04/24/2018 | 15:19     |
| 34  | J2508-17        |                   | 1  | 2.53                | 100            | 7.16    | 2.25     | 0.045          | 0.045 | 0.000                 | -0.001 | 04/24/2018 | 15:20     |
| 35  | J2508-21        |                   | 1  | 2.54                | 100            | 7.39    | 1.87     | 0.038          | 0.038 | 0.000                 | -0.001 | 04/24/2018 | 15:20     |
| 36  | J2509-01        |                   | 1  | 2.52                | 100            | 7.20    | 1.59     | 0.005          | 0.005 | 0.000                 | -0.001 | 04/24/2018 | 15:21     |
| 37  | J2509-01DUP     |                   | 1  | 2.51                | 100            | 7.66    | 2.44     | 0.006          | 0.006 | 0.000                 | -0.001 | 04/24/2018 | 15:21     |
| 38  | J2509-01MSPre   | 40                | 2  | 2.50                | 100            | 7.90    | 1.77     | 0.007          | 0.360 | 0.353                 | 0.459  | 04/24/2018 | 15:22     |
| 39  | CCV4            | 0.5               | 1  | 100                 | 100            |         | 2.13     | 0.000          | 0.391 | 0.391                 | 0.508  | 04/24/2018 | 15:22     |
| 40  | CCB4            |                   | 1  | 100                 | 100            |         | 2.30     | 0.000          | 0.000 | 0.000                 | -0.001 | 04/24/2018 | 15:23     |
| 41  | J2509-01MS2Ins  | 1284              | 40 | 2.51                | 100            | 7.84    | 1.64     | 0.004          | 0.599 | 0.595                 | 0.773  | 04/24/2018 | 15:23     |
| 42  | J2509-01MS3Post | 40                | 2  | 2.54                | 100            | 7.21    | 1.52     | 0.010          | 0.365 | 0.355                 | 0.461  | 04/24/2018 | 15:24     |

|    |      |     |   |     |     |  |      |       |       |       |        |            |       |
|----|------|-----|---|-----|-----|--|------|-------|-------|-------|--------|------------|-------|
| 43 | CCV5 | 0.5 | 1 | 100 | 100 |  | 2.07 | 0.000 | 0.391 | 0.391 | 0.508  | 04/24/2018 | 15:24 |
| 44 | CCB5 |     | 1 | 100 | 100 |  | 1.90 | 0.000 | 0.000 | 0.000 | -0.001 | 04/24/2018 | 15:25 |