

LEV III

Batch#

Facility Name: US EPA NVFEL Facility Type: In House

Owner: USEPA Phone: (734) 214-4881

2565 Plymouth Road

Ann Arbor MI 48105-2425 Washtenaw County

US

Inspector: N. Tschirhart Inspection Date : 6/6/2013

Time In: 00:00 Time Out: 00:00

Samples Type: Test Fuel

VOC

Inspection information logged in by NST on 8/7/2014.

Season:

LEV III-reg 8-7-14

FTAG: 24350

Comments:

| Test Code | Test Method | Results | Units | Fuel_ 64 Code: | Analyst | Analysis Date |
|-----------|------------------------------------|---------|-----------------------|----------------|---------|---------------|
| 597 | ETBE by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5810 | n-Butanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 428 | Sulfur in Gasoline by D5453 | 9.55 | Parts Per Million | | NS | 8/19/2014 |
| 5810 | n-Butanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5809 | t-Amyl Alcohol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 595 | Volume Percent Oxygenates by D4815 | 9.91 | Volume Percent | | TS | 8/11/2014 |
| 595 | Volume Percent Oxygenates by D4815 | 9.94 | Volume Percent | | TS | 8/11/2014 |
| 594 | Weight Percent Oxygenates by D4815 | 10.48 | Weight Percent | | TS | 8/11/2014 |
| 594 | Weight Percent Oxygenates by D4815 | 10.51 | Weight Percent | | TS | 8/11/2014 |
| 590 | Weight Percent Oxygen by D4815 | 3.64 | Weight Percent | | TS | 8/11/2014 |
| 590 | Weight Percent Oxygen by D4815 | 3.65 | Weight Percent | | TS | 8/11/2014 |
| 5807 | i-Propanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5810 | n-Butanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 597 | ETBE by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5810 | n-Butanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 596 | MTBE by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 596 | MTBE by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5806 | n-Propanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5806 | n-Propanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5804 | sec-Butanol by D4815 | 0.00 | Oxygen weight Percent | | TS | 8/11/2014 |
| 5804 | sec-Butanol by D4815 | 0.00 | Oxygen weight Percent | | TS | 8/11/2014 |
| 5803 | sec-Butanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5803 | sec-Butanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 600 | DIPE by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 600 | DIPE by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 598 | TAME by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 598 | TAME by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5807 | i-Propanol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5809 | t-Amyl Alcohol by D4815 | 0.00 | Volume Percent | | TS | 8/11/2014 |
| 5808 | Weight Percent Oxygenates by D5599 | 10.10 | Weight Percent | | TS | 8/11/2014 |
| 5808 | Weight Percent Oxygenates by D5599 | 10.20 | Weight Percent | | TS | 8/11/2014 |
| 552 | MTBE by D5599 | 0.00 | Oxygen Percent | | TS | 8/11/2014 |
| 552 | MTBE by D5599 | 0.00 | Oxygen Percent | | TS | 8/11/2014 |

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|-----|-------------------------------------|---------------------|----------------------------|-----|-----------|
| 562 | ETBE | by D5599 | 0.00 Oxygen Percent | TS | 8/11/2014 |
| 562 | ETBE | by D5599 | 0.00 Oxygen Percent | TS | 8/11/2014 |
| 534 | Ethanol | by D5599 | 3.54 Oxygen Percent | TS | 8/11/2014 |
| 534 | Ethanol | by D5599 | 3.51 Oxygen Percent | TS | 8/11/2014 |
| 572 | TAME | by D5599 | 0.00 Oxygen Percent | TS | 8/11/2014 |
| 572 | TAME | by D5599 | 0.00 Oxygen Percent | TS | 8/11/2014 |
| 62 | Vapor Pressure | by D5191 (Modified) | 7.01 PS I | NST | 8/7/2014 |
| 62 | Vapor Pressure | by D5191 (Modified) | 7.01 PS I | NST | 8/7/2014 |
| 65 | Percent Evaporated at 200 Degrees F | D86 | 46.4 Volume Percent | RG | 8/7/2014 |
| 66 | Percent Evaporated at 300 Degrees F | D86 | 83.3 Volume Percent | RG | 8/7/2014 |
| 48 | Aromatics in Gasoline | MSD D5769 | 23.03 Volume Percent | TW | 8/7/2014 |
| 48 | Aromatics in Gasoline | MSD D5769 | 22.93 Volume Percent | TW | 8/7/2014 |
| 59 | Weight Percent Oxygen | by D5599 | 3.54 Weight Percent | TS | 8/11/2014 |
| 59 | Weight Percent Oxygen | by D5599 | 3.51 Weight Percent | TS | 8/11/2014 |
| 55 | MTBE | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 593 | Volume Percent Oxygenates | by D5599 | 9.64 Volume Percent | TS | 8/11/2014 |
| 55 | MTBE | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 57 | TAME | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 532 | Ethanol | by D5599 | 9.64 Volume Percent | TS | 8/11/2014 |
| 532 | Ethanol | by D5599 | 9.54 Volume Percent | TS | 8/11/2014 |
| 593 | Volume Percent Oxygenates | by D5599 | 9.54 Volume Percent | TS | 8/11/2014 |
| 57 | TAME | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 56 | ETBE | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 56 | ETBE | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 630 | Toluene in gasoline | by MSD D5769 | 5.79 Volumn Percent | TW | 8/7/2014 |
| 63 | Benzene in Gasoline | by GC/MSD D5769 | 0.67 Volume Percent | TW | 8/7/2014 |
| 63 | Benzene in Gasoline | by GC/MSD D5769 | 0.67 Volume Percent | TW | 8/7/2014 |
| 630 | Toluene in gasoline | by MSD D5769 | 5.79 Volumn Percent | TW | 8/7/2014 |
| 69 | Specific Gravity @ 60 deg F | D4052 | 0.75094 60/60F | NT | 8/7/2014 |
| 692 | Degrees API | D4052 | 56.93 Degrees API | NT | 8/7/2014 |
| 691 | Density @ 60 deg F | D4052 | 0.75020 g/cm-03 @ 60 deg F | NT | 8/7/2014 |
| 101 | Initial Boiling Point | D86 | 109.9 Degrees F | RG | 8/7/2014 |
| 110 | 10 Percent | D86 | 138.1 Degrees F | RG | 8/7/2014 |
| 150 | 50 Percent | D86 | 213.2 Degrees F | RG | 8/7/2014 |
| 190 | 90 Percent | D86 | 317.6 Degrees F | RG | 8/7/2014 |
| 200 | End Point | D86 | 352.4 Degrees F | RG | 8/7/2014 |
| 201 | Residue | D86 | 1.0 mL | RG | 8/7/2014 |
| 202 | Total Recovery | D86 | 98.0 mL | RG | 8/7/2014 |
| 203 | Loss | D86 | 1.0 mL | RG | 8/7/2014 |
| 543 | Methanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 543 | Methanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 533 | Ethanol | by D4815 | 9.91 Volume Percent | TS | 8/11/2014 |
| 533 | Ethanol | by D4815 | 9.94 Volume Percent | TS | 8/11/2014 |
| 584 | Isopropanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |

| | | | | | |
|------|------------------------|----------|-----------------------------|---------|-----------|
| 584 | Isopropanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 585 | t-Butanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 585 | t-Butanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 586 | n-Propanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 586 | n-Propanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 587 | sec-Butanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 587 | sec-Butanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 588 | DIPE | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 588 | DIPE | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 589 | Isobutanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 589 | Isobutanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 5801 | t-Amyl Alcohol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 5801 | t-Amyl Alcohol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 5802 | n-Butanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 5802 | n-Butanol | by D5599 | 0.00 Volume Percent | TS | 8/11/2014 |
| 542 | Methanol in Gasoline | D4815 | 0.00 Volume Percent | TS | 8/11/2014 |
| 542 | Methanol in Gasoline | D4815 | 0.00 Volume Percent | TS | 8/11/2014 |
| 582 | t-Butanol in Gasoline | D4815 | 0.00 Volume Percent | TS | 8/11/2014 |
| 582 | t-Butanol in Gasoline | D4815 | 0.00 Volume Percent | TS | 8/11/2014 |
| 583 | i-Butanol in Gasoline | D4815 | 0.00 Volume Percent | TS | 8/11/2014 |
| 583 | i-Butanol in Gasoline | D4815 | 0.00 Volume Percent | TS | 8/11/2014 |
| 30 | Lead in Gasoline | by D3237 | 0.001 Grm Pb per Gallon | Paragon | 8/13/2014 |
| 227 | Gum Content Washed | | 0.5 mg/100ml | Paragon | 8/11/2014 |
| 228 | Gum Content Unwashed | | 18.2 mg/100ml | Paragon | 8/11/2014 |
| 991 | Phosphorus in Gasoline | by D3231 | 0.0000 Grams per Gallon | Paragon | 8/13/2014 |
| 221 | Motor Octane | | 83.8 Motor Octane Number | Paragon | 8/12/2014 |
| 218 | Sensitivity | | 8.6 RON-MON | CPU | 8/12/2014 |
| 219 | Antiknock | | 88.10 (RON+MON)/2 | CPU | 8/12/2014 |
| 220 | Research Octane | | 92.4 Research Octane Number | Paragon | 8/12/2014 |
| 225 | Copper Corrosion | D130 | 1a Designation | Paragon | 8/11/2014 |
| 230 | Net Heating Value | D240 | 17955.00 BTU/lb | Paragon | 8/13/2014 |
| 231 | Carbon Content | D5291 | 82.60 Weight Percent | Paragon | 8/8/2014 |
| 232 | Hydrogen Content | D5291 | 13.73 Weight Percent | Paragon | 8/8/2014 |
| 492 | Olefins | by D6550 | 4.7 Volume Percent | LS | 8/11/2014 |
| 492 | Olefins | by D6550 | 4.7 Volume Percent | LS | 8/11/2014 |