# National Accreditation Board for Testing and Calibration Laboratories

## SCOPE OF ACCREDITATION

**Laboratory Name :** TCRC PETROLABS BHARAT PRIVATE LIMITED, 403, FOURTH FLOOR, SHIV INDUSTRIAL ESTATE, MUMBAI, MAHARASHTRA, INDIA

**Accreditation Standard** ISO/IEC 17025:2017

**Certificate Number** TC-10319 **Page No** 1 of 5

**Validity** 15/02/2022 to 14/02/2024 **Last Amended on** -

| S.No | Discipline / Group | Materials or Products tested | Component, parameter or characteristic tested / Specific Test Performed / Tests or type of tests performed | Test Method Specification against which tests are performed and / or the techniques / equipment used |
|---|---|---|---|---|
| Permanent Facility | | | | |
| 1 | CHEMICAL- LUBRICANTS | Lubricating Grease | Consistency of lubricating grease at 25±0.5°C | ASTM D217 |
| 2 | CHEMICAL- LUBRICANTS | Lubricating Grease | Consistency of lubricating grease at 25±0.5°C | ISO 2137 |
| 3 | CHEMICAL- LUBRICANTS | Lubricating Oil | Cloud Point | ASTM D 2500 |
| 4 | CHEMICAL- LUBRICANTS | Lubricating Oil | Cloud Point | IS1448 Part-10,Sec-1 |
| 5 | CHEMICAL- LUBRICANTS | Lubricating Oil | Cloud Point | ISO 3015 |
| 6 | CHEMICAL- LUBRICANTS | Lubricating Oil | Copper Strip Corrosion Test | ASTM D 130 |
| 7 | CHEMICAL- LUBRICANTS | Lubricating Oil | Copper Strip Corrosion Test | IS 1448 Part 15 |
| 8 | CHEMICAL- LUBRICANTS | Lubricating Oil | Density @ 29.5 °C | ASTM D 4052 |
| 9 | CHEMICAL- LUBRICANTS | Lubricating Oil | Flash Point (COC) | ASTM D 92 |
| 10 | CHEMICAL- LUBRICANTS | Lubricating Oil | Flash Point (COC) | IS 1448 Part 69 |
| 11 | CHEMICAL- LUBRICANTS | Lubricating Oil | Flash Point (COC) | ISO 2592 |
| 12 | CHEMICAL- LUBRICANTS | Lubricating Oil | Flash Point (PMCC) | ASTM D 93 |
| 13 | CHEMICAL- LUBRICANTS | Lubricating Oil | Flash Point (PMCC) | IS:1448(P-21) |
| 14 | CHEMICAL- LUBRICANTS | Lubricating Oil | Flash Point (PMCC) | ISO 2719 |
| 15 | CHEMICAL- LUBRICANTS | Lubricating Oil | Kinematic Viscosity at 100 °C | ASTM D7042 |
| 16 | CHEMICAL- LUBRICANTS | Lubricating Oil | Kinematic Viscosity, at 40°C | ASTM D7042 |
| 17 | CHEMICAL- LUBRICANTS | Lubricating Oil | Micro Carbon Residue Test | ASTM D4530 |
| 18 | CHEMICAL- LUBRICANTS | Lubricating Oil | Micro Carbon Residue Test | ISO 10370 |
| 19 | CHEMICAL- LUBRICANTS | Lubricating Oil | Moisture Content | ASTM D6304 |
| 20 | CHEMICAL- LUBRICANTS | Lubricating Oil | Moisture Content | IS 2362 |
| 21 | CHEMICAL- LUBRICANTS | Lubricating Oil | Pour Point | ASTMD97 |
| 22 | CHEMICAL- LUBRICANTS | Lubricating Oil | Pour Point | IS:1448(P-10)sec 2 |
| 23 | CHEMICAL- LUBRICANTS | Lubricating Oil | Pour Point | ISO 3016 |
| 24 | CHEMICAL- LUBRICANTS | Lubricating Oil | Sulphur | ASTM D2622 |
| 25 | CHEMICAL- LUBRICANTS | Lubricating Oil | Total Acid Number | IS 1448 (P : 1) |
| 26 | CHEMICAL- LUBRICANTS | Lubricating Oil | Total Acid Number | ASTM D664 |
| 27 | CHEMICAL- LUBRICANTS | Lubricating Oil | Total Acid Number | ISO 6649 |
| 28 | CHEMICAL- LUBRICANTS | Lubricating Oil | Total Base Number | ASTM D2896 |

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| 29 | CHEMICAL- LUBRICANTS | Lubricating Oil | Total Base Number | IS:1448(P-86) |
| 30 | CHEMICAL- LUBRICANTS | Lubricating Oil | Total Base Number | ISO 3771 |
| 31 | CHEMICAL- LUBRICANTS | Lubricating Oil | Viscosity Index | ASTM D2270 |
| 32 | CHEMICAL- LUBRICANTS | Lubricating Oil | Viscosity Index | IS:1448(P-56) |
| 33 | CHEMICAL- LUBRICANTS | Lubricating Oil | Viscosity Index | ISO 2909 |
| 34 | CHEMICAL- LUBRICANTS | Lubricating Oil | Water Content | ASTM D95 |
| 35 | CHEMICAL- LUBRICANTS | Lubricating Oil | Water Content | IS:1448(P-40) |
| 36 | CHEMICAL- LUBRICANTS | Lubricating Oil | Water Content | ISO 3733 |
| 37 | CHEMICAL- PETROLEUM AND PRODUCTS | Crude Oil/ Bunker Oil/ Fuel Oil | Kinematic Viscosity,at 50°C | ASTM D7042 |
| 38 | CHEMICAL- PETROLEUM AND PRODUCTS | Crude Oil/ Bunker Oil/ Fuel Oil/ LDO/ HFHSD | Sediments | ASTMD 473 |
| 39 | CHEMICAL- PETROLEUM AND PRODUCTS | Crude Oil/ Bunker Oil/ Fuel Oil/ LDO/ HFHSD | Sediments | IS:1448 Part -30 |
| 40 | CHEMICAL- PETROLEUM AND PRODUCTS | Crude Oil/ Gasoline/ Naphtha | Reid Vapour Pressure | ASTM D 323 |
| 41 | CHEMICAL- PETROLEUM AND PRODUCTS | Crude Oil/ Gasoline/ Naphtha | Reid Vapour Pressure | IS1448 Part - 39 |
| 42 | CHEMICAL- PETROLEUM AND PRODUCTS | Crude Oil/ Gasoline/ Naphtha | Reid Vapour Pressure | ISO3007 |
| 43 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Pour Point °C | ASTMD97 |
| 44 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Pour Point °C | IS:1448 Part 10 Section 2 |
| 45 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Pour Point °C | ISO 3016 |
| 46 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Gasoline/ Naphtha/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO/ Kerosine | Density @15°C | ASTM D 4052 |
| 47 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Biodiesel/ Gasoline/ Naphtha/ Kerosene | Distillation | ASTM D86 |
| 48 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Biodiesel/ Gasoline/ Naphtha/ Kerosene | Distillation | IS:1448 Part - 18 |
| 49 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Biodiesel/ Gasoline/ Naphtha/ Kerosene | Distillation | ISO 3405 |
| 50 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Biodiesel/ Petroleum Additive/ LDO | Kinematic Viscosity, at 40°C | ASTM D7042 |

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| 51 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Bunker Oil/ Fuel Oil/ Biodiesel/ LDO | Micro Carbon Residue Test (MCRT) | ASTM D4530 |
| 52 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Bunker Oil/ Fuel Oil/ Biodiesel/ LDO | Micro Carbon Residue Test (MCRT) | ISO 10370 |
| 53 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Water Content | ASTM D95 |
| 54 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Water Content | IS:1448(P-40) |
| 55 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Water Content | ISO 3733 |
| 56 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude Oil/ Gasoline/ Naphtha/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO/ Kerosene | Sulphur | ASTM D2622 |
| 57 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel oil/ Biodiesel/ LDO | Ash Content | ASTM D482 |
| 58 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel oil/ Biodiesel/ LDO | Ash Content | IS:1448 Part 4 |
| 59 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel oil/ Biodiesel/ LDO | Ash Content | ISO 6245 |
| 60 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Moisture content | ASTM D6304 |
| 61 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Moisture content | IS 2362 |
| 62 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Moisture content | ISO 15512 |
| 63 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Total Acid Number | ASTM D664 |
| 64 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Total Acid Number | IS 1448 part I |
| 65 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Crude/ Bunker Oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Total Acid Number | ISO 6649 |
| 66 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Gasoline/ Naphtha/ Biodiesel/ Petroleum Additive/ Kerosene | Cu Strip Corrosion at 50°C/100°C | ASTM D130 |
| 67 | CHEMICAL- PETROLEUM AND PRODUCTS | Diesel Oil/ HFHSD/ Gasoline/ Naphtha/ Biodiesel/ Petroleum Additive/ Kerosene | Cu Strip Corrosion at 50°C/100°C | IS:1448(P-15) |
| 68 | CHEMICAL- PETROLEUM AND PRODUCTS | HFHSD/ Biodiesel/ Petroleum Additive | Cloud Point °C | ASTM D 2500 |
| 69 | CHEMICAL- PETROLEUM AND PRODUCTS | HFHSD/ Biodiesel/ Petroleum Additive | Cloud Point °C | IS 1448 ( P : 10 ) |

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| 70 | CHEMICAL- PETROLEUM AND PRODUCTS | HFHSD/ Biodiesel/ Petroleum Additive | Cloud Point °C | ISO 3015 |
| 71 | CHEMICAL- PETROLEUM AND PRODUCTS | HFHSD/ Crude/ Bunker oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Flash Point (PMCC) | ASTM D93 |
| 72 | CHEMICAL- PETROLEUM AND PRODUCTS | HFHSD/ Crude/ Bunker oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Flash Point (PMCC) | IS:1448 part - 21 |
| 73 | CHEMICAL- PETROLEUM AND PRODUCTS | HFHSD/ Crude/ Bunker oil/ Fuel Oil/ Biodiesel/ Petroleum Additive/ LDO | Flash Point (PMCC) | ISO 2719 |
| 74 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | 1,3- Butadiene | ASTM D 2163 |
| 75 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | 1,3- Butadiene | ISO7941 |
| 76 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Butene-1 | ASTM D 2163 |
| 77 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Butene-1 | ISO7941 |
| 78 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Cis-2-Butene | ASTM D 2163 :1963 RA |
| 79 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Cis-2-Butene | ISO7941 |
| 80 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Ethane | ASTM D 2163 |
| 81 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Ethane | ISO7941 |
| 82 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Isobutane | ASTM D 2163 |
| 83 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Isobutane | ISO7941 |
| 84 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Isobutylene | ASTM D 2163 |
| 85 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Isobutylene | ISO7941 |
| 86 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Isopentane | ASTM D 2163 |
| 87 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Isopentane | ISO7941 |
| 88 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | n-Butane | ASTM D 2163 |

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| 89 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | n-Butane | ISO7941 |
| 90 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | n-Pentane | ASTM D 2163 |
| 91 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | n-Pentane | ISO7941 |
| 92 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Propane | ASTM D 2163 |
| 93 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Propane | ISO7941 |
| 94 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Propylene | ASTM D 2163 |
| 95 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Propylene | ISO7941 |
| 96 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Trans-2-Butene | ASTM D 2163 |
| 97 | CHEMICAL- PETROLEUM AND PRODUCTS | LPG Gas | Trans-2-Butene | ISO7941 |