



C30+ COMPOSITIONAL ANALYSIS

B150630:AU6203

| | | | | | | | |
|-------------------------------|--|---------------------|--|-------------------------|--|---------------------------|--|
| MaxxID | | Client ID | | Meter Number | | Laboratory Number | |
| CRUDE QUALITY INC. | | | | | | | |
| Operator Name | | | | LSD | | Well ID | |
| CRUDE QUALITY INC. MINI ASSAY | | | | | | MAXXAM ANALYTICS | |
| Well Name | | | | Initials of Sampler | | Sampling Company | |
| | | | | LLB NAPHTHA IBP - 190°C | | 4L CAN | |
| Field or Area | | Pool or Zone | | Sample Point | | Container Identity | |
| Percent Full | | | | | | | |
| Test Recovery | | Interval | | Elevations (m) | | Sample Gathering Point | |
| Solution Gas | | From: | | KB | | Well Fluid Status | |
| Well Status Mode | | To: | | GRD | | Well Status Type | |
| Well Type | | Gauge Pressures kPa | | Temperature °C | | Licence No. | |
| Production Rates | | Source | | As Received | | Gas or Condensate Project | |
| Water m3/d | | Oil m3/d | | Gas 1000m3/d | | | |
| | | Source | | As Received | | | |
| | | | | | | | |
| Date Sampled Start | | Date Sampled End | | Date Received | | Date Reported | |
| 2011/06/14 | | 2011/07/19 | | 2011/07/19 | | GS1 | |
| Date Reissued | | Analyst | | | | | |

| COMPOSITION | | | |
|-------------|---------------|---------------|-----------------|
| COMPONENT | MOLE FRACTION | MASS FRACTION | VOLUME FRACTION |
| N2 | | | |
| CO2 | | | |
| H2S | | | |
| C1 | 0.0000 | 0.0000 | 0.0000 |
| C2 | Trace | Trace | Trace |
| C3 | 0.0025 | 0.0012 | 0.0016 |
| IC4 | 0.0218 | 0.0145 | 0.0175 |
| NC4 | 0.1076 | 0.0714 | 0.0831 |
| IC5 | 0.1568 | 0.1292 | 0.1408 |
| NC5 | 0.1791 | 0.1475 | 0.1591 |
| C6 | 0.1720 | 0.1692 | 0.1723 |
| C7+ | 0.3602 | 0.4670 | 0.4256 |
| TOTAL | 1.0000 | 1.0000 | 1.0000 |

| PROPERTIES | | | | | | |
|------------|--------------------------|------------|-------------------------|------------|---------------|---------------|
| RESIDUE | RELATIVE DENSITY @ 15 °C | | RELATIVE MOLECULAR MASS | | DATA SUMMARY | |
| | OBSERVED | CALCULATED | OBSERVED | CALCULATED | MOLE FRACTION | MASS FRACTION |
| C5+ | | 0.692 | | 92 | 0.8681 | 0.9129 |
| C6+ | | 0.724 | | 105 | 0.5322 | 0.6362 |
| C7+ | 0.747 | | 114 | 114 | 0.3602 | 0.4670 |
| C10+ | | | | | 0.0820 | 0.1433 |
| C12+ | | | | | 0.0108 | 0.0229 |
| TOTAL | | 0.681 | | 88 | | |

Calculated Absolute Density Total Sample: 680.4 kg/m3 @ 15°C
 Gas Equivalent Factor: 183.15 m3 Gas/m3 Liquid

** Information not supplied by client -- data derived from LSD information Results relate only to items tested

Remarks:



C30+ COMPOSITIONAL ANALYSIS

CRUDE QUALITY INC.

B150630:AU6203

Operator Name

Laboratory Number

CRUDE QUALITY INC. MINI ASSAY

LLB NAPHTHA IBP - 190°C

Well Name

Sample Point

MAXXAM ANALYTICS

Sampling Company

MaxxD

Client ID

2011/06/14

2011/07/19

2011/07/19

GS1

Date Sampled Start

Date Sampled End

Date Received

Date Reported

Date Reissued

Analyst

| COMPONENT | BOILING POINT (°C) | MOLE FRACTION | MASS FRACTION | VOLUME FRACTION |
|------------------------|--------------------|---------------|---------------|-----------------|
| Nitrogen | -196 | | | |
| Carbon Dioxide | -79 | | | |
| Hydrogen Sulphide | -60 | | | |
| Methane | -162 | 0.0000 | 0.0000 | 0.0000 |
| Ethane | -89 | Trace | Trace | Trace |
| Propane | -42 | 0.0025 | 0.0012 | 0.0016 |
| Iso-Butane | -12 | 0.0218 | 0.0145 | 0.0175 |
| n-Butane | 0 | 0.1076 | 0.0714 | 0.0831 |
| Iso-Pentane | 28 | 0.1568 | 0.1292 | 0.1408 |
| n-Pentane | 36 | 0.1791 | 0.1475 | 0.1591 |
| Hexanes | 37-69 | 0.1720 | 0.1692 | 0.1723 |
| Heptanes | 70-98 | 0.1410 | 0.1489 | 0.1402 |
| Octanes | 99-126 | 0.0924 | 0.1117 | 0.1022 |
| Nonanes | 127-151 | 0.0448 | 0.0631 | 0.0573 |
| Decanes | 152-174 | 0.0377 | 0.0606 | 0.0556 |
| Undecanes | 175-196 | 0.0335 | 0.0598 | 0.0512 |
| Dodecanes | 197-216 | 0.0098 | 0.0190 | 0.0161 |
| Triadecanes | 217-236 | 0.0002 | 0.0004 | 0.0003 |
| Tetradecanes | 237-253 | Trace | Trace | Trace |
| Pentadecanes | 254-271 | Trace | Trace | Trace |
| Hexadecanes | 272-287 | Trace | Trace | Trace |
| Heptadecanes | 288-302 | Trace | Trace | Trace |
| Octadecanes | 303-317 | Trace | Trace | Trace |
| NonaDecanes | 318-331 | Trace | Trace | Trace |
| Eicosanes | 332-343 | Trace | Trace | Trace |
| Heneicosanes | 344-357 | Trace | Trace | Trace |
| Docosanes | 358-369 | Trace | Trace | Trace |
| Triacosanes | 370-380 | Trace | Trace | Trace |
| Tetracosanes | 381-391 | Trace | Trace | Trace |
| Pentacosanes | 392-402 | Trace | Trace | Trace |
| Hexacosanes | 403-412 | Trace | Trace | Trace |
| Heptacosanes | 413-422 | Trace | Trace | Trace |
| Octacosanes | 423-432 | Trace | Trace | Trace |
| Nonacosanes | 433-441 | Trace | Trace | Trace |
| triacontanes+ | 442-449+ | 0.0008 | 0.0035 | 0.0027 |
| Totals | | 1.0000 | 1.0000 | 1.0000 |
| neoHexane | 50 | 0.0000 | 0.0000 | 0.0000 |
| Methylcyclopentane | 70 | 0.0304 | 0.0291 | 0.0263 |
| Benzene | 80 | 0.0106 | 0.0095 | 0.0073 |
| Cyclohexane | 81 | 0.0227 | 0.0218 | 0.0189 |
| Methylcyclohexane | 101 | 0.0308 | 0.0346 | 0.0304 |
| Toluene | 111 | 0.0129 | 0.0136 | 0.0106 |
| Ethylbenzene | 136 | 0.0019 | 0.0023 | 0.0018 |
| m&p-Xylene | 139 | 0.0069 | 0.0084 | 0.0065 |
| o-Xylene | 144 | 0.0018 | 0.0022 | 0.0016 |
| 1,2,4-Trimethylbenzene | 169 | 0.0032 | 0.0045 | 0.0035 |

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