



EXTENDED GAS ANALYSIS

V0008164 - 1 CONTAINER IDENTITY
 SHELL CANADA LIMITED OPERATOR
 200 b-3-G/99-P-3/00 LOCATION (WELL)
 Bullmoose FIELD OR AREA
 WELL ID: 15372
 WELL LICENSE NUMBER: 15372
 OPERATOR: Shell Bullmoose b-3-G/99-P-3
 WELL NAME: Bellay
 POOL OR ZONE: Shell Canada
 LABORATORY FILE NUMBER: 52136-2003-2043
 PAGE: 1
 NO. ELEV (m):
 DR. ELEV (m):
 SAMPLER:

TEST TYPE AND NO.: Flowline
 TEST RECOVERY:
 POINT OF SAMPLE: PUMPING FLOWING
 WATER: OIL: GAS: MISC:
 TEST INTERVAL OF PERFS (metres):
 SEPARATOR: RESERVOIR OTHER:
 PRESSURES, kPa (gauge): 9784 @ 10890 @ 22 °C
 CONTAINER WHEN SAMPLED: CONTAINER WHEN RECEIVED: SEPARATOR OTHER:
 Temperatures, °C:
 at 07:21 hrs 2003 07 23 2003 07 23 AB ANALYST
 DATE SAMPLED (MM/DD) DATE RECEIVED (MM/DD) DATE ANALYZED (MM/DD) ART. AND TYPE CUBIC METER FLUID IDENTITY

COMPONENT	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	WELL AIR FREE AS RECEIVED
H ₂	0.0004	0.0012	
He	0.0003	0.0008	
N ₂	0.0403	0.1107	
CO ₂	0.2557	0.0000	
H ₂ S	0.3800	0.0000	
C ₁	0.3232	0.8859	
C ₂	0.0001	0.0003	0.4
C ₃	Trace	Trace	Trace
iC ₄	Trace	Trace	Trace
C ₄	0.0000	0.0000	0.0
iC ₃	0.0000	0.0000	0.0
C ₅	Trace	Trace	Trace
C ₆	0.0000	0.0000	0.0
C ₇₊	0.0000	0.0000	0.0
Total	1.0000	1.0000	0.4

CALCULATED ORIGINATING WELLS KMPH @ 15°C & 101.325 kPa (abs.) 21.34 MOISTURE FREE	CALCULATED VAPOR PRESSURE kPa (abs.) @ 40 °C 33.63 MOISTURE & ACID GAS FREE 33.63 PENTANES PLUS
CALCULATED TOTAL SAMPLE PROPERTIES (AIR-FREE) MOISTURE FREE AS SAMPLED 1.291 kg/m ³ DENSITY	CALCULATED PSEUDO-CRITICAL PROPERTIES ACID GAS FREE 298.4 K 445.2 kPa (abs.) 183.1 K AS SAMPLED
RELATIVE DENSITY 1.054 RELATIVE MOLECULAR MASS 30.6	GAS COMPRESSIBILITY @ 15°C, 101.325 kPa SUPER COMPRESSIBILITY @ 15°C, 101.325 kPa

REMARKS:
 H₂S determined in the field by Tutweiler = 35.00%
 Lab H₂S by Gas Chromatography = 29.32

Purged sample

NOTE: THE GROSS HEATING VALUE HAS BEEN CALCULATED IN ACCORDANCE TO AEA REPORT #3 AND ALL PROPERTIES HAVE BEEN CALCULATED UTILIZING OPA 1148 - 88 PHYSICAL CONSTANTS.