

TB1A 16GS074435A  
Container Identification    Sample Point Code    Meter Code    AGAT WDMS Number    Previous Number    Laboratory Number

ELCANO EXPLORATION LTD FLARE STACK 03-34-012-27W1  
Operator Name    Sampling Point    Unique Well Identifier

NORTH HARGRAVE 3-34 BATTERY  
Well Name    Well License    Well Status    Well Fluid Status    LSD

NORTH HARGRAVE NOT APPLICABLE AGAT/ESTEVAN JS/JV  
Field or Area    Pool or Zone    Sampler's Company    Name of Sampler

<small>Test Interval (mKB)</small>	<small>Elevation (m)</small>	<small>Pressure (kPa)</small>	<small>Temperature (°C)</small>
From: _____ To: _____	KB: _____ GRD: _____	1 <small>Source    Received</small>	2    21 <small>Source    Received</small>

Mar 07, 2016 Mar 09, 2016 Mar 17, 2016 Mar 17, 2016 Calgary - Gerry Ecker - Reporter  
Date Sampled    Date Received    Date Analyzed    Date Reported    Location - Approved By - Title

Other Information FIELD H2S BY TUT = 7.88%

### COMPOSITION

Component	Mole Fraction		Liquid Volume mL / m <sup>3</sup>	Mole Fraction of Previous Analysis
	Air Free As Received	Air & Acid Gas Free As Received		
H <sub>2</sub>	TRACE	TRACE		
He	0.0010	0.0012		
N <sub>2</sub>	0.1182	0.1453		
CO <sub>2</sub>	0.1079	0.0000		
H <sub>2</sub> S	0.0788	0.0000		
C <sub>1</sub>	0.0309	0.0380		
C <sub>2</sub>	0.2277	0.2800	809.2	
C <sub>3</sub>	0.2607	0.3205	958.0	
iC <sub>4</sub>	0.0539	0.0663	235.4	
nC <sub>4</sub>	0.0788	0.0969	331.5	
iC <sub>5</sub>	0.0218	0.0268	106.4	
nC <sub>5</sub>	0.0086	0.0106	41.6	
C <sub>6</sub>	0.0069	0.0085	37.9	
C <sub>7+</sub>	0.0048	0.0059	30.4	
TOTAL	1.0000	1.0000	2550.4	

### PROPERTIES

Calculated Heating Value @15 °C & 101.325 kPa (MJ/m <sup>3</sup> )				
Gross		Net		
<b>66.13</b>	<b>78.97</b>	<b>1.02</b>	<b>60.24</b>	<b>71.95</b>
<small>Air Free as Received</small>	<small>Moisture &amp; Acid Gas Free</small>	<small>C<sub>7+</sub> Moisture Free</small>	<small>Air Free as Received</small>	<small>Moisture &amp; Acid Gas Free</small>

Calculated Density				
Relative			Absolute	
<b>1.401</b>	<b>1.407</b>	<b>3.571</b>	<b>692.6</b>	<b>1.716</b>
<small>Moisture Free As Received</small>	<small>Moisture &amp; Acid Gas Free</small>	<small>C<sub>7+</sub> Moisture Free</small>	<small>C<sub>7+</sub> Density (kg/m<sup>3</sup>)</small>	<small>Total Sample Density (kg/m<sup>3</sup>)</small>

Calculated Pseudo Critical Properties			
As Sampled		Acid Gas Free	
<b>4897.6</b>	<b>324.7</b>	<b>4171.3</b>	<b>322.7</b>
<small>pPc (kPa)</small>	<small>pTc (K)</small>	<small>pPc (kPa)</small>	<small>pTc (K)</small>

Hydrogen Sulfide (H <sub>2</sub> S) (ppm)		
Field Value	Laboratory Value	
<b>78800</b>	<b>113.36</b>	
<small>Stain Tube</small>	<small>Tutweiler</small>	<small>Other    GC-SCD</small>

Calculated Molecular Weight (Moisture Free as Received) (g/mol)	
<b>40.6</b>	<b>103.4</b>
<small>Total Sample</small>	<small>C<sub>7+</sub> Fraction</small>

Calculated Vapour Pressure	Gas Compressibility
<b>101.62</b>	<b>0.9819</b>
<small>C<sub>3+</sub> (kPa)</small>	<small>@ 15 °C &amp; 101.325 kPa</small>

WDMS Data Verification Check 

**Exceeds normal limits :IC5, N2**