

FLUID ANALYSES

FOR

COLUMBIA GAS DEVELOPMENT OF CANADA LTD.

COLUMBIA ET AL KOTANEELEE YT H-38

KOTANEELEE

YUKON TERRITORIES

CORE LABORATORIES - CANADA LTD.

Petroleum Reservoir Engineering

CALGARY - EDMONTON - REGINA



CORE LABORATORIES - CANADA LTD.
Petroleum Reservoir Engineering
CALGARY ALBERTA



6445 SS

GAS ANALYSIS

7012-71139

CONTAINER IDENTITY

LABORATORY NUMBER

Columbia Gas Development of Canada Ltd.

1 of 4

OPERATOR

PAGE

Columbia et al Kotaneelee YT H-38

2250'

2225'

LOCATION

WELL OR SAMPLE LOCATION NAME

KB ELEV.

GRO. ELEV.

Kotaneelee, Yukon Territories

Nahanni

Johnston Testers

FIELD OR AREA

POOL OR ZONE

SAMPLER

DST #2

755' Liquid

TEST TYPE & NO.

TEST RECOVERY

Flareline

POINT OF SAMPLE

AMT. & TYPE CUSHION

@

OF

MUD RESISTIVITY

11630' - 11690'

PUMPING

FLOWING

GAS LIFT

SWAB

WATER

BBLS/D.

OIL

BBLS/D.

GAS

MFC/D.

TEST INTERVALS OR PERFS.

@

OF

44 @ 80 OF

SEPARATOR RESERVOIR

CONTAINER WHEN SAMPLED

CONTAINER WHEN RECEIVED

SEPARATOR

PRESSURES, PSIG

TEMPERATURES, °F

Sept. 28/77

Oct. 11/77

Oct. 11/77

OR

DATE SAMPLED (D/M/Y)

DATE RECEIVED (D/M/Y)

DATE ANALYSED (D/M/Y)

ANALYST

REMARKS

COMPONENT	MOL % AIR FREE AS REC'D	MOL % AIR FREE ACID GAS FREE	CDN. G.P.M. AIR FREE AS REC'D
H ₂	0.06		
He	0.04		
N ₂	4.43		
CO ₂	1.99		
H ₂ S	0.00		
C ₁	93.46		
C ₂	0.02		
C ₃	0.00		0.000
iC ₄	0.00		0.000
C ₄	0.00		0.000
iC ₅	0.00		0.000
C ₅	0.00		0.000
C ₆	0.00		0.000
C ₇ ⁺	0.00		0.000
TOTAL	100.00		0.000
		C ₅ ⁺	0.000

GROSS HEATING VALUE BTU/FT ³ @ 60°F & 14.65 PSIA			
(MOISTURE & ACID GAS FREE)			
	MEASURED	CALCULATED	DEW POINT
		960.9	0.0
			VAPOUR PRESS. PENTANES PLUS

SPECIFIC GRAVITY			
MOISTURE FREE AS SAMPLED		MOISTURE AND ACID GAS FREE	
	MEASURED	CALCULATED	MEASURED
		0.591	
			CALCULATED

PSEUDOCRITICAL PROPERTIES (CALCULATED)			
AS SAMPLED		ACID GAS FREE	
672.5	PSIA	342.0	OR
	P _{Pc}		P _{Tc}
			P _{Pc}
			P _{Tc}

REMARKS

**DEPARTMENT OF INDIAN
& NORTHERN AFFAIRS**
Regional Conservation Engineer
NOV 8 1977
 Northern Natural Resources
& Environment Branch

2686



CORE LABORATORIES - CANADA LTD.
Petroleum Reservoir Engineering
CALGARY ALBERTA



DST CHAMBER #103421

GAS ANALYSIS

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Columbia Gas Development of Canada Ltd.

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OPERATOR

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Columbia et al Kotaneelee YT H-38

2250'

2225'

LOCATION

WELL OR SAMPLE LOCATION NAME

KB ELEV.

GRD. ELEV.

Kotaneelee, Yukon Territories

Nahanni

Johnston Testers

FIELD OR AREA

POOL OR ZONE

SAMPLER

DST #2

DST: 755' Liquid

TOOL: No Fluid Recovered

TEST TYPE & NO.

TEST RECOVERY

MFE Chamber 103421

@ OF

POINT OF SAMPLE

AMT. & TYPE CUSHION

MUD RESISTIVITY

11630' - 11690'

PUMPING

FLOWING

GAS LIFT

SWAB

WATER

BBLS/D. OIL

BBLS/D. GAS

MFC/D.

TEST INTERVALS OR PERFS.

SEPARATOR RESERVOIR

@ OF CONTAINER WHEN SAMPLED

1 @ 76 OF CONTAINER WHEN RECEIVED

SEPARATOR

PRESSURES, PSIG

TEMPERATURES, °F

Sept. 28/77

Oct. 11/77

Oct. 13/77

OR

DATE SAMPLED (D/M/Y)

DATE RECEIVED (D/M/Y)

DATE ANALYSED (D/M/Y)

ANALYST

REMARKS

COMPONENT	MOL % AIR FREE AS REC'D	MOL % AIR FREE ACID GAS FREE	CDN. G.P.M. AIR FREE AS REC'D
H ₂	0.60		
He	0.04		
N ₂	12.36		
CO ₂	1.87		
H ₂ S	0.00		
C ₁	85.11		
C ₂	0.02		
C ₃	0.00		0.000
iC ₄	0.00		0.000
C ₄	0.00		0.000
iC ₅	0.00		0.000
C ₅	0.00		0.000
C ₆	0.00		0.000
C ₇₊	0.00		0.000
TOTAL	100.00		0.000
		C ₅₊	0.000

GROSS HEATING VALUE BTU/FT ³ @ 60°F & 14.65 PSIA		
(MOISTURE & ACID GAS FREE)		
MEASURED	875.9	CALCULATED
		DEW POINT
		VAPOUR PRESS. PENTANES PLUS
		0.0

SPECIFIC GRAVITY			
MOISTURE FREE AS SAMPLED		MOISTURE AND ACID GAS FREE	
MEASURED	0.620	MEASURED	CALCULATED

PSEUDOCRITICAL PROPERTIES (CALCULATED)			
AS SAMPLED		ACID GAS FREE	
655.1	PSIA	331.0	°R
pPc		pTc	
		pPc	PSIA
			pTc

REMARKS



CORE LABORATORIES - CANADA LTD.
Petroleum Reservoir Engineering
CALGARY ALBERTA



DST CHAMBER #110267
CONTAINER IDENTITY

GAS ANALYSIS

7012-71139

Columbia Gas Development of Canada Ltd.

LABORATORY NUMBER

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OPERATOR

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Columbia et al Kotaneelee YT H-38

2250'

2225'

LOCATION

WELL OR SAMPLE LOCATION NAME

KB ELEV.

GRD. ELEV.

Kotaneelee, Yukon Territories

Nahanni

Johnston Testers

FIELD OR AREA

POOL OR ZONE

SAMPLER

DST #2

DST: 755' Liquid

TOOL: No Fluid Recovered

TEST TYPE & NO.

TEST RECOVERY

MFE Chamber 110267

@ of

POINT OF SAMPLE

AMT. & TYPE CUSHION

MUD RESISTIVITY

11630' - 11690'

PUMPING

FLOWING

GAS LIFT

SWAB

WATER

BBLS/D.

OIL

BBLS/D.

GAS

MFC/D.

TEST INTERVALS OR PERFS.

SEPARATOR RESERVOIR

CONTAINER WHEN SAMPLED

40 @ 80 of
CONTAINER WHEN RECEIVED

SEPARATOR

PRESSURES, PSIG

TEMPERATURES, °F

Sept. 28/77

Oct. 11/77

Oct. 12/77

OR

DATE SAMPLED (D/M/Y)

DATE RECEIVED (D/M/Y)

DATE ANALYSED (D/M/Y)

ANALYST

REMARKS

COMPONENT	MOL % AIR FREE AS REC'D	MOL % AIR FREE ACID GAS FREE	CDN. G.P.M. AIR FREE AS REC'D
H ₂	0.92		
He	0.05		
N ₂	3.24		
CO ₂	13.70		
H ₂ S	0.14		
C ₁	81.94		
C ₂	0.01		
C ₃	0.00		0.000
iC ₄	0.00		0.000
C ₄	0.00		0.000
iC ₅	0.00		0.000
C ₅	0.00		0.000
C ₆	0.00		0.000
C ₇ ⁺	0.00		0.000
TOTAL	100.00		0.000
		C ₅ ⁺	0.000

GROSS HEATING VALUE BTU/FT ³ @ 60°F & 14.65 PSIA (MOISTURE & ACID GAS FREE)		
MEASURED	CALCULATED	0.0
		<small>DEW POINT</small>
		<small>VAPOUR PRESS. PENTANES PLUS</small>

SPECIFIC GRAVITY			
MOISTURE FREE AS SAMPLED		MOISTURE AND ACID GAS FREE	
MEASURED	CALCULATED	MEASURED	CALCULATED

PSEUDOCRITICAL PROPERTIES (CALCULATED)			
AS SAMPLED		ACID GAS FREE	
718.1	365.3	OR	
<small>PpC</small>	<small>PpC</small>	<small>PpC</small>	<small>PpC</small>
<small>PSIA</small>	<small>PSIA</small>	<small>PSIA</small>	<small>PSIA</small>
			<small>OF</small>

REMARKS



CORE LABORATORIES - CANADA LTD.
Petroleum Reservoir Engineering
CALGARY ALBERTA



Plastic
CONTAINER IDENTITY

7012-71139
LABORATORY NUMBER

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OPERATOR

PAGE

Columbia et al Kotaneelee YT H-38

2250' 2225'
KB ELEV. GRO. ELEV.

LOCATION

WELL OR SAMPLE LOCATION NAME

Kotaneelee, Yukon Territories
FIELD OR AREA

Nahanni
POOL OR ZONE

Johnston Testers
SAMPLER

DST #2
TEST TYPE & NO.

755' Liquid
TEST RECOVERY

@ OF

11630' - 11690'
TEST INTERVALS OR PERFS.

POINT OF SAMPLE

AMT. & TYPE CUSHION

MUD RESISTIVITY

PUMPING FLOWING GAS LIFT SWAB
 WATER BBLS/D. OIL BBLS/D. GAS MFC/D.

<small>SEPARATOR</small>	<small>RESERVOIR</small>	<small>@</small>	<small>OF</small>	<small>@</small>	<small>OF</small>	<small>SEPARATOR</small>
		<small>CONTAINER</small>		<small>CONTAINER</small>		
		<small>WHEN SAMPLED</small>		<small>WHEN RECEIVED</small>		
<small>PRESSURES, PSIG</small>					<small>TEMPERATURES, °F</small>	

Sept. 28/77	Oct. 11/77	Oct. 24/77	LES	
<small>DATE SAMPLED (D/M/Y)</small>	<small>DATE RECEIVED (D/M/Y)</small>	<small>DATE ANALYSED (D/M/Y)</small>	<small>ANALYST</small>	<small>REMARKS</small>

ANALYSIS

Resistivity = 0.0160 Ohm-meters @ 25°C

Chloride = 18,644 mg/liter

REMARKS: Insufficient sample to perform a routine analysis.