



2842068

## Certificate of Inspection

BLUE RANGE RESOURCES LTD.  
905, 706 - 7 AVE S W  
CALGARY, ALBERTA

T2P OZ1

LOCATION: 15-13-88-13 W6M CLEAR PRAIRIE, ALBERTA

COMPANY CODE:

PREFERRED RE-INSP. INTERVAL: 3.00 YRS

DESCRIPTION: SEPARATOR

CRN: K9067.21

MANUFACTURER: NUSCO MANUFACTURING & SUPPLY LTD.

SERIAL # : 6000K-V01

YEAR BUILT: 1993

HEATING SURFACE:

m2

CUBICAL CAPACITY:

0.303 m3

PART	MAX. AUTHORIZED PRESSURE	MAX. TEMP	MIN. TEMP	ID/LOCATION	SAFETY VALVES SET/CAPACITY	AT TEMP
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SEPARATOR

4964 kPa

49 C SV1

-29 C TO BE INSTALLED

0 kPa

0

### OWNER INSTRUCTIONS/REMARKS:

VERIFY THAT VESSEL IS PROTECTED BY A 'UV' SAFETY RELIEF VALVE OF ADEQUATE CAPACITY, SET AT NO MORE THAN MAXIMUM PRESSURE AUTHORIZED, HAS BEEN INSTALLED IN ACCORDANCE WITH THE REGULATIONS.  
CONTACT THE AREA INSPECTOR BEFORE PLACING THE VESSEL IN SERVICE.

INSPECTOR: PLASKITT, DONALD WILLIAM

SIGNATURE: *D W Plaskitt*

NOTE: REQUIREMENTS OF THE BOILERS AND PRESSURE VESSELS ACT AND THE REGULATIONS ISSUED THEREUNDER:

THE OWNER OR PERSON IN CHARGE SHALL REPORT ALL ACCIDENTS INVOLVING A BOILER, PRESSURE VESSEL OR PRESSURE PIPING SYSTEM TO THE DISTRICT INSPECTOR IMMEDIATELY AND SHALL SEND A FULL REPORT IN WRITING TO THE CHIEF INSPECTOR AS REQUIRED BY THE ACT. NO REPAIRS OR ALTERATIONS MAY BE MADE UNLESS AUTHORIZED BY AN INSPECTOR.

# RAE Engineering and Inspection Ltd.

#111,4808 - 87 Street, Edmonton, Alberta T6E 5W3  
 Phone: (780) 469-2401 Fax (780) 468-2422

Date Printed 2003/06/24

## Field Inspection Report

Vessel # 2842068

<b>Client</b>	Canadian Natural Resources Ltd.		<b>Inspection Date</b>	2003/06/16	
<b>Prov. Reg.#</b>	2842068		<b>Insp. Type</b>	VEMI/UT	
<b>Equipment</b>	Vertical Separator		<b>Location</b>	Clearhills	
<b>Tag/Equip. #</b>			<b>LSD</b>	15-13-88-13W5	
<b>Vessel Status</b>	In Service		<b>Comp./Unit</b>		
<b>Manufacturer</b>	Nusco	<b>Serial #</b>	6000KV01	<b>MAWP/Temp</b>	720 psi 120 F
<b>CRN #</b>	K9067.21	<b>Shell Material</b>	SA-106-B	<b>Shell Thick.</b>	0.656 in
<b>Corrosion All.</b>	0.125 in	<b>Head Material</b>	SA-516-70	<b>Head Thick.</b>	0.625 in
<b>Manway</b>	No	<b>Head Material 2</b>		<b>Head Thick. 2</b>	in
<b>Coating</b>	No	<b>Channel Material</b>		<b>Channel Thick.</b>	in
<b>Diameter</b>	16 in	<b>Length</b>	in	<b>Height</b>	90 in
<b>Year Built</b>	1993	<b>Next Inspection</b>	2007		<b>Next Insp. Type</b>
<b>Service</b>	Sour			<b>Job #</b>	03-203
<b>PSV #.</b>	PSV2842068				
<b>Mfg.</b>	Taylor Tool	<b>Serial #</b>		<b>Set Pressure</b>	720 psi
<b>Type/Model</b>	T79002	<b>Capacity</b>	2992 SCFM	<b>Size</b>	2.000 in
<b>Date of Service</b>	2003/06/16	<b>Next Service</b>	2007	<b>Service Co.</b>	Unified Valve

### Observations:

External

Vessel painted - paint in poor condition, surface corrosion and some minor to moderate pitting. Vessel secure to skid. All gauges in good condition. Associated piping in fair condition, fully bolted, insulation kit missing from bolt pipeline flange, surface corrosion and minor to moderate pitting.

Internal

Not opened for inspection

AB-40 to be attached

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## Field Inspection Report

Vessel # 2842068

PSV

Located on vessel, vented to flare tank, seal wire intact

UT

At random spots, minimum 10 spots each

Measurements in inches

Top Head - 0.600 to 0.662

Shell - 0.625 to 0.681

Bottom Head - 0.600 to 0.671

3" Inlet Elbow - 0.210 to 0.243

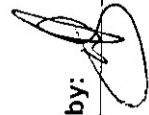
3" Outlet Elbow - 0.224 to 0.261

2" Drain Elbow - 0.438 to 0.522

### Recommendations:

Vessel fit for service.

Inspector:  Gerry Moran

Reviewed by: 

AB-40 to be attached

**RAE Inspection Service (1979) Ltd.**  
 #111, 4808 - 87 Street, Edmonton, Alberta T6E 5W3  
 Phone: (780) 469-2401 Fax: (780) 468-2422

**Field Inspection Report**  
**Vessel A # 2842068**

<b>Client</b>	Canadian Natural Resources Ltd.		<b>Date of Insp.</b>	January 12, 2000	
<b>Prov. Reg.#</b>	2842068		<b>Location</b>	Clearhills	
<b>Equipment</b>	Separator		<b>LSD</b>	15-13-88-13W5	
<b>Tag/Equip. #</b>			<b>Comp./Unit #</b>		
<b>Vessel Status</b>	In Operation		<b>Job #</b>	00-006 B	
<b>Fabricator</b>	Nusco	Serial #	6000K-V01	MAWP/Temp	720 psi/ 120F
<b>CRN#</b>	K9067.21	Shell Mat'l	SA-106-B	Shell Thick.	0.656"
<b>Corr. All.</b>	0.125"	Head Mat'l	SA-516-70	Head Thick.	0.625"
<b>Diameter</b>	18"	Length	10'	RT	1 HT Yes
<b>Year Built</b>	1993	Next Insp.	2000	Insp. Type	VE
<b>Service</b>		Manway		Coating	
<b>PSV #.</b>					
<b>Mfg.</b>	Taylor	Serial #	2756	Set Pressure	720 psi
<b>Type/Model</b>	T7900	Capacity	5901 SCFM	Size	1x1"
<b>Date of Service</b>	99/06	Next Service	2003	Service Co.	Dalco

**Report # 9243**

**Observations:**

External Vessel appears to be in good external condition.

**Recommendations:**

Internal inspection required in 2000.

**Inspector: Trevor Paananen**

**Reviewed By:**

