



May 6, 2005

5860-4545-59240-06  
OGC - 05155

Mel Miller  
Sr. Exploitation Engineer  
Northrock Resources Ltd.  
3500, 700 - 2<sup>nd</sup> Street  
CALGARY, AB T2P 2W2

Dear Mr. Miller:

**RE: APPLICATION FOR GOOD ENGINEERING PRACTICE AMENDMENT  
MICA - MICA "A" OIL POOL**

Oil and Gas Commission staff have reviewed the application, dated November 16, 2004 and supplemental information dated December 17, 2004, for Good Engineering Practice (GEP) approval amendment for the Mica - Mica "A" oil pool.

The Mica "A" pool was discovered and placed on production in 1976. Solution gas conservation was initiated in 2000 and GEP approval issued February 5, 2001. The project daily oil allowable (DOA) of 70.0 m<sup>3</sup> is based on the sum of the individual well allowables. In 2004 the OGC increased reserves booked for the Mica - Mica "A" to account for continued production with shallow decline. Based on this re-assessment, cumulative production has now reached 18.9% of original oil in place.

GEP approval is intended to allow flexible well production management under a single project allowable, to maximize oil recovery. This approval also allows wells to be drilled without regard for spacing and target regulations in order to maximize pool recovery. The OGC is of the opinion that, should a secondary recovery waterflood scheme not be attractive, opportunities may remain for additional drilling locations, wells that would increase pool primary recovery. As pool production is currently not restricted by the present allowable, your application to increase the DOA is denied.

The last reservoir pressure test on this pool was conducted in January 2002. The Mica "A" pool is subject to a biennial testing approval. If tests were not conducted in 2004 they must be performed in the present year

Should you have any questions, please contact Ron Stefik at (250) 952-0310.

Sincerely,

Craig Gibson, P. Eng.  
Director  
Resource Conservation Branch

**Approval Letters to Industry  
GEP, SWD, CONCURRENT PROD,  
PRESSURE MAINTENANCE,  
WATERFLOOD, ETC.**

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- D. Krezanoski

**RESOURCE CONSERVATION BRANCH**

PO Box 9329 Stn Prov Gov't, Victoria BC V8W 9N3 Tel: (250) 952-0302 Fa  
Location: 6<sup>th</sup> Flr 1810 Blanshard St, Victoria BC

Headquarters: #200, 10003 110<sup>th</sup> Ave, Fort St. John BC V1J 6M7 Tel: (250) 261-5729 Fax: (250) 261-5744  
www.ogc.gov.bc.ca

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Application from Northrock Resources Ltd. to increase the GEP DOA, credit for undrilled oil spacing areas. Northrock has conducted simulations that indicate waterflooding at this point in time would not meet their economic limits.

Personal communications with at least one other company indicated that they had approached Northrock to buy this property, with a plan to waterflood, however Northrock rebuffed their proposal without a counter-offer.

Pool is isolated on the south side of the Peace River from Fort St. John so access is a problem for finding source water.

OGC Reserves have been increased substantially from those quoted by Northrock. OGC reserves updated 2004/08, decline, due to negative reserves.

$$\begin{aligned} N_p (2005/03) &= 193,476.3 \text{ m}^3 \quad (18.9\% \text{ OOIP}, 62.9\% \text{ IR to-date!}) \\ &= (1.22 \text{ mmbbls}) \end{aligned}$$

$$G_p (2000/12) = 71,103.0 \text{ e}^3 \text{ m}^3$$

$$W_p (2000/12) = 2,257.0 \text{ m}^3 \quad (\text{WC} = 4 - 5\%)$$

$$\begin{aligned} \text{OOIP} &= 1,026,000.0 \text{ m}^3 \\ &= (6.45 \text{ mmbbls}) \end{aligned}$$

$$\begin{aligned} \text{IR} &= 307,800.0 \quad (\text{Rf} = 30\%) \\ &= (1.94 \text{ mmbbls}) \end{aligned}$$

$$h = 1.1 \text{ m}$$

$$\text{phi} = 17.2\%$$

$$S_w = 12.9\%$$

Pool is not currently restricted by DOA. Denial to increase maintains leverage to force operator to either drill additional well(s) or re-examine waterflood.

Ron Stefik