

Flaring Application Approval

4. Approval to be faxed to:	
Name: Rejean Tetrault	Fax #: 403-269-7948

5. Well and Formation Information	
Well Name Shell Field B-3-G/93-P-3 Bullmoose	Well Authorization No. 15372 ✓

Geological Formation(s): Pardonnet/Baldonnel ✓	Perforated Interval(s) (m): 2962-3067mKB (proposed)
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Justification for and details of efforts to minimize flared volumes: MUST BE COMPLETED

Cleanup flaring is required to allow the well to be tested following stimulation activities (typically no more than 1 day). The planned well test is a modified isochronal test followed by extended test. The modified isochronal test will help determine well deliverability and the extended test will help determine reservoir extent (reserves). Both of these pieces of information are very important to help justify tie-in costs. The modified isochronal test involves daytime flaring and nighttime shut-in periods (4 in total at different rates) and the extended test involves flowing the well at a single rate for a period of 2-3 days. The nearest pipeline tie-in approximately 3-4km away and tie-in costs are estimated at approximately \$5-6 million. Economics suggest that 300e6m3 or more is required to pay out the cost of the tie-in. Assuming the reservoir parameters for both zones are as predicted, this planned test design should be adequate to evaluate the well, and justify the tie-in.

For more detail on planned testing, please refer to attached documentation on cleanup and testing plans.

Approval Conditions:

Your application to flare the gas for the purpose of production testing the well has been reviewed and approved subject to the following conditions:

- All rural residences and administrators of any incorporated centres within at least a 3 kilometre radius must be notified prior to commencement of any flaring operations.
- The Oil & Gas Commission must be notified by facsimile using the "Fax In Notice of Service Rig Move, Workover or Well Test Flaring" form found on our web page at www.ogc.gov.bc.ca at least 24 hours prior to commencement of the start of the test. If the H₂S content is 5% or greater, please advise the OGC by phone at (250) 261-5763.
- The Well Deliverability Test Report, supporting fluid analyses, gas and liquid production rates and a schematic of the downhole equipment must be submitted to this office and the Reservoir Engineering Section, Victoria, within 60 days of the end of the test.
- Any conditions required by the Oil and Gas Waste Regulation must be complied with.
- Any conditions specified by the Regional Waste Manager, Pollution Prevention, Ministry of Water, Land, and Air Protection must be complied with. The Ministry of Water, Land and Air Protection will contact the operator if any conditions will be required by the Regional Waste Manager.
- This approval is valid for a 60-day period only.
- The Oil and Gas Commission must be notified in writing if this application is cancelled.

6. For Commission Use Only

The total volume of gas to be flared shall not exceed 775 10³m³.

Appropriate BC-S1, BC-S2 and BC-11 reports must be filed with the Mineral, Oil and Gas Revenue Branch, Ministry of Provincial Revenue in Victoria no later than the 25th of the month following the month in which the flaring occurred. The codes to use for reporting are:

Fac. I.D.: 6409 Operator: 0742 Pool: 4060 and U.W.I.: 200B003G093P0300

2003-07-04 Approval date (YYYY-MM-DD)

Contractor's Signature
Authorized Commission Employee

Submitted to Ministry of Water, Land, and Air Protection as required by Section 6 of the Oil and Gas Waste Regulation.