

**Meager Creek Development Corporation
a subsidiary of
Western GeoPower Corp.**

South Meager Geothermal Project

REVISED PROJECT DESCRIPTION

December 21, 2004

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1. Proponent – Meager Creek Development Corp. -
a subsidiary of Western GeoPower Corp.

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Principal business:

Western GeoPower Corp. (WGP) is an emerging Independent Power Producer dedicated to the generation of renewable geothermal energy in British Columbia. Western GeoPower Corp. was incorporated in British Columbia by Memorandum and Articles on January 18, 1985 and completed its transition under the Business Corporations Act of British Columbia on April 2, 2004.

Through its wholly owned subsidiary, Meager Creek Development Corporation (MCDC), the Company holds a 100% interest in the South Meager Geothermal Project located 150 km north of Vancouver, British Columbia.

MCDC holds the only geothermal lease in Canada issued for the commercial production of electricity. Geothermal Lease 44507, comprising 4,267 ha, was issued June 14, 1994 and amended February 19, 2003. The lease expires December 17, 2017 and may be renewed for a further term of 20 years.

Western GeoPower Corp. is a private Canadian company incorporated under the laws of British Columbia and is listed on the TSX Venture Exchange (Trading Symbol: WGP).

2. Project Description

Location

The South Meager geothermal area is located approximately 170 km north of Vancouver in undeveloped, mountainous country. The project area is located approximately 55 km northwest of the Village of Pemberton in the Upper Lillooet watershed (Fig.1).

Access is via Highway 99 from Vancouver to Pemberton, followed by 25 km of paved provincial highway through Pemberton Meadows, then 48 km of industrial-grade logging roads.

The project is situated on a relatively steep south slope of Pylon Peak, approximately equidistant between No Good Creek and Angel Creek. Both No Good Creek and Angel Creek flow into Meager Creek 14 km and 11 km southwest of its confluence with the Lillooet River. Elevations for the project range from 1,080 to 1,380 meters above sea level.

Geothermal Lease 44507 is defined under the system for petroleum lands as:

N.T.S. Map No. 92-J-11	Block D, Units 80, 90, 100 Block E, Units 10, 19, 20, 29, 30, 39, 40, 49, 50
N.T.S. Map No. 92-J-12	Block A, Units 71-75, 81-85, 91-95 Block H. Units 1-5, 11-15, 21-25, 31-35, 41-45

Project History

Since the late 1970s, the South Meager hydrothermal resource has been investigated using various exploration techniques including geology, geochemistry and geophysics, and the drilling of numerous temperature gradient wells (slim-diameter wells used to measure subsurface temperature), deep slim wells and several full-diameter wells. During one of its flow tests, one of the full-diameter wells – drilled by B.C. Hydro - was used to supply a 20 kW pilot geothermal power facility.

The results of these explorations strongly indicate the presence of a geothermal reservoir with an areal extent identified to date of 4.5 to 7.5 km², and an average temperature of 220 to 240°C with a maximum measured temperature of 275° C. These attributes identify the South Meager field as a “high temperature” field (defined as one with 200°C or higher temperature) and a major geothermal site (defined as a site with 100 MW or more of potential development capacity).

GeothermEx of Richmond, California, an internationally recognized authority on geothermal energy, has concluded the South Meager Geothermal Project has the potential to support a minimum 100 MW power plant (sufficient to supply electricity to 80,000 households) and has a ‘probable’ capacity of 200 MW. For economic reasons, most geothermal resources are evaluated commercially relative to potential lifetimes of 20 to 30 years. However, there are geothermal fields in production for more than 50 years and longer lifetimes are forecast.

It is anticipated that power from the South Meager Geothermal Project will be sold in western Canada although it is possible it might be sold in the western United States. The Company will seek to negotiate a long-term power sales contract in the course of confirming over-all project feasibility and will take advantage of the stated policy of the B.C. Government and B.C. Hydro that 50% of new power over the next 10 years be sustainable “green” power. The power will be wheeled through the transmission systems of the B.C. Transmission Corp.

The Company currently is proceeding with a resource confirmation program in which up to four production-size test wells are being drilled in 2004-05 to confirm the potential for commercial geothermal production.

The Company also is proceeding with environmental and other studies relevant to completion of a Feasibility Study and preparation of an Application for an Environmental Assessment Certificate (Application) under B.C.'s *Environmental Assessment Act*.

Project Facilities

The project involves the design, construction and operation of physical facilities comprising production and injection wells, a gathering and injection system and a power generation plant at the plant site and a transmission line and inter-tie. A general description of the nature of these facilities follows.

Production and Injection Wells

Production wells will be constructed by directional drilling from a small number of drill pads (as few as three depending on the size of the reservoir), thus reducing both project costs and potential environmental impacts. Dry production holes also can be used to inject process water back into the reservoir. Anticipated well depths are 2,500 meters or less. Wells will be drilled using established technology similar to that employed in the oil and gas industry.

Fluid Gathering and Injection Systems

The assumed gathering system consists of pipelines and vessels that transport the steam from the wellheads to the power plant. The injection system handles two streams of injection fluids: 1) hot water remaining after flash in low-pressure separators; and 2) excess cooling water derived from steam condensation. Non-condensable gases are treated for H₂S abatement, yielding a sulphur by-product that often is used for fertilizer. This type of configuration has been employed successfully at several geothermal fields, including the Coso field in California that has been operating since 1987.

Power Plant

It is envisaged that the South Meager Project will utilize dual-flash turbine technology with two standard 55 MW (gross) generating units. This type of plant installation has been used at many geothermal projects.

Transmission Line

A 230 kV line tying in to the B.C. Transmission Corporation (BCTC) system will be required. A route through the Pemberton Valley – the major transportation corridor in the project area – is strongly opposed by the Squamish-Lillooet Regional District and local stakeholders. Preliminary studies have identified two potential alternatives, an 80 km route through the Upper Lillooet and Birkenhead Valley to tie-in to a new substation at Poole Creek (Fig. 2 Birkenhead Option) and an 80 km route through the Hurley River valley (Fig. 3 Hurley Option). However, the Hurley route would require an upgrade of BCTC's existing 69 kV transmission line from Lajoie to Shalath.

3. Land Use Setting

The South Meager geothermal lease is located within Area C of the Squamish-Lillooet Regional District and within the Squamish Forest District of the Coast Forest Region.

The lease is located within the Sea-to-Sky Land and Resource Management Plan (LRMP) study area. Suggested land use guidelines for this LRMP currently are being drafted for submission to the Ministry of Sustainable Resource Management.

The project area is mainly within the asserted traditional territory of the Lil'wat Nation (Mount Currie Band) but the Band is not currently engaged in a treaty negotiation process. On December 8, 2003 the Lil'Wat Nation filed a writ of summons in B.C. Supreme Court assuming the Nation's territorial claims to all of the Whistler, Pemberton and Mount Currie area. The Company has established a positive relationship with the Lil'Wat Nation and its development company, Creekside Resources Inc., and is engaged in continuing consultation on all aspects of the geothermal project.

Similar consultations will be conducted with other First Nations in the event a transmission line route should transect their asserted traditional territories.

The geothermal project's primary works – wellheads, extraction system and generating plant - would be located on undeveloped Crown land previously utilized for timber cutting operations. An 80 km transmission line corridor through the Birkenhead Valley would utilize logged Crown land except for one unlogged 4-5 km section through the Upper Birkenhead and an additional 4 km section in the vicinity of Railroad Pass. The alternative, an 80 km route through the heavily logged Hurley Valley, also would be mainly, if not entirely, on Crown land.

Meager Creek Hot Springs is located 8 km southeast of the project area and is administered by the B.C. Ministry of Forests. The hot springs historically have been utilized by the public during summer months. Access to the hot springs currently is curtailed as a result of the destruction of an access bridge during a high water event on Meager Creek in October 2003.

All geothermal project facilities will be closed and reclaimed at the end of the project life. All buildings, pipelines, machinery and ancillary facilities will be removed and all areas re-vegetated.

4. Environmental and Socio-Economic Considerations

Environmental

The Company has commissioned a number of environmental studies for inclusion in its Application for an Environmental Assessment Certificate. Environmental consultants commissioned to conduct environmental studies include: Ecodomain Consulting, LGL Limited, Geostream Environmental Consulting, Robert Fuller Consulting and Via-Sat Data Systems. Members of the Lil'Wat First Nation have been commissioned to conduct wildlife surveys.

Environmental assessments are being conducted as two separate studies – one for the Meager Creek watershed where the geothermal wells and generating plant will be located and one for the transmission line corridor.

Assessments of the biophysical environment include:

- Geophysical environment: Topography, soils and geology, hydrogeology and groundwater and natural hazards.
- Atmospheric environment: Climate, air quality, precipitation
- Aquatic environment: Aquatic habitats, surface hydrology, water quality.
- Terrestrial environment: Biophysical mapping, vegetation, wildlife, threatened or endangered species

Socio-economic

A key public concern related to energy development in the Squamish-Lillooet Regional District is the potential visual/aesthetic impact of transmission lines as this relates to both permanent residents and tourists. This applies particularly to views from the Pemberton Valley.

A socio-economic assessment also will consider the potential economic and social impacts of both the construction and operational phases on the Regional District and the Village of Pemberton. Local companies already are being contracted for timber cutting operations, road building and maintenance, wildlife monitoring, site preparation and site reclamation activities. Where feasible, equipment and supplies are being purchased locally.

First Nations

As noted, the primary project area is within the asserted traditional territory of the Lil'Wat Nation. The Company consulted with the Mount Currie Band Council and individual members regarding traditional uses in the area of the resource confirmation drilling program and received an Archaeological Overview Assessment conducted by Datum Archaeological Consulting prior to commencing drilling operations.

The Company subsequently commissioned Datum Archaeological, in association with Creekside Resources Inc., to prepare an Archaeological Impact Assessment of the plant area and that portion of the transmission line corridor transecting Lil'Wat traditional territory. MCDC also is commissioning an Aboriginal Interest and Use Study related to the Lil'Wat interests. Other First Nations potentially affected by the project are being consulted as required, including the N'Quatqua First Nation whose asserted traditional territory incorporates portions of the transmission line option transecting the Birkenhead Valley.

Creekside Resources Inc. and another company operated by members of the Lil'Wat Nation also have been contracted for timber cutting, road building and wildlife monitoring services. It is expected that similar opportunities will be available during the construction and operational phases of the project.

The Company also is commissioning a study of potential spin-off projects such as aquaculture or greenhouse operations utilizing the generating plant's process steam and hot water. The Company's objective is to identify a business opportunity for the Lil'Wat Nation and the concept has been discussed with the Band Council.

5.0 PROJECT BENEFITS

Green Energy

As a sustainable "green" source of electrical energy, the South Meager Geothermal Project responds to the United Nations Framework Convention on Climate Change and the associated Kyoto Protocol and supports the related objectives and policies of the Canadian federal government and B.C. Government.

Energy Supplies

In the wake of British Columbia's changed status to a net importer of electricity, the BC Government has mandated that future generation should come from Independent Power Producers, with up to 50% of that from "green" sources. BC Hydro has stated that capacity must be increased

by 1,200 MW over the next decade to meet projected demand. The South Meager Geothermal Project will supply a minimum 100 MW of green power, with a potential for 200 MW.

Employment

The company's head office currently employs 10 staff. The resource confirmation program has employed 10 persons from the Pemberton area on timber cutting, road building and site preparation. Some 10-20 persons from the Pemberton area have been employed in support roles during the confirmation drilling program. Approximately 55 experienced workers and professional staff from other jurisdictions will be employed on the drill crews and drilling support services and in supervisory or professional roles.

The capital construction of a geothermal generating plant and associated transmission line, substation and other facilities would employ some 250-350 personnel over a two-year construction period. Once in operation, the geothermal plant and transmission facilities would employ some 30-45 persons full-time and work related to road and transmission route maintenance and similar services would be sub-contracted locally, with employment varying on a seasonal basis.

Expenditures

Some \$16 million has been budgeted for completion of the resource confirmation program, a feasibility study and an environmental assessment. The capital cost of a 100 MW generating plant and associated facilities is estimated at \$276 million over the two-year construction period. Operational expenditures are estimated in the order of \$12 million annually.

The project will generate substantial payroll and tax revenues. Significant spin-off employment and business opportunities are expected with respect to the purchase of equipment, supplies and services from local and area sources.

Downstream Benefits

Geothermal projects in other jurisdictions have generated significant spin-off opportunities by providing energy for residential and commercial heating systems, greenhouses, land-based fish farms and spas – referred to as “downstream benefits.”

The Company is negotiating with the Centre for Environmental Research in Minerals, Metals and Materials (CERM3) at the University of B.C. on a collaborative research program to determine potential downstream benefits from the South Meager geothermal project. Also, as noted, the Company's objective is to identify a potential business opportunity for the Lil'Wat Nation.

Recreational Development

Outdoor recreational potential in the project area may include hiking and camping, fishing and hunting, skiing, snowmobiling and hot springs facilities. This potential presently is limited by the remote location, difficult access, difficult terrain, lack of infrastructure and facilities and restrictions on entering wildlife habitat.

6. Public Consultation

Extensive consultation activities have been conducted with regional and local governments, the Lil'wat First Nation, special interest groups and the general public since December 2001. These consultations are recorded in Meeting Notes, correspondence and a Public Consultation Report submitted to the Oil and Gas Commission in March 2004 with the Company's application for a drilling permit.

Consultation activities were suspended during 2003 as the Company reviewed the results of the 2001-2002 drilling program and undertook a corporate reorganization and refinancing preparatory to proceeding to the resource confirmation phase. Consultation activities were renewed in March 2004 and are continuing. The Company held public information meetings in the communities of Birken and Pemberton in December 2004 in addition to meetings with elected officials, representatives of the Land and Resource Management Plan process, and backcountry recreation interests.

Community stakeholders raised a number of questions and issues during the consultation process. In the main, these related to the potential route of a transmission line from the geothermal plant site to tie in with B.C. Transmission Corp. No concerns were raised with respect to the initial test hole drilling program and no concerns have been raised with respect to the current confirmation drilling program.

7. Permits and Licences

Aside from the permits and licences related to the resource confirmation program, the most significant immediate requirement following successful completion of the resource confirmation program would be the receipt of an Environmental Assessment Certificate resulting from a comprehensive review by the Environmental Assessment Office under the terms of the *BC Environmental Assessment Act*.

Identification of additional permits and licences for the project construction and operational phases would be identified in consultation with relevant government agencies including the Squamish-Lillooet Regional District which would be responsible for zoning the generating plant site.

8. Project Timing

The potential project schedule is envisaged as follows:

	<u>Year 2004</u>
• Project Description submitted to Environmental Assessment Office	Mid July
• Section 10 Order issued by Environmental Assessment Office	Mid July
• Section 11 Order issued by Environmental Assessment Office	Mid December
• Environmental Assessment Office issues final Terms of Reference	Late December
• Pre-Application public and First Nations consultations	Ongoing
• Complete drilling on Well MC-6. Initiate Well MC-7	December
• Initiate interconnection discussion with BC Transmission Corp.	December
• Submit Expression of Interest to BC Hydro	Completed
	<u>Year 2005</u>
• Meeting of Proponent/Government Agencies Working Group	Early February
• Complete evaluation/testing of Wells MC-6 and MC-7	February
• Submit Application for Environmental Assessment Certificate	Late February
• Application accepted for review*	Late March

- Initiate land use application to Land & Water BC April
- Initiate Regional District zoning application April
- Initiate preliminary engineering design April
- Decision on Application for Environmental Assessment Certificate Oct-November
- Initiate detailed engineering and equipment procurement December

Year 2006-2007

- Project construction to commencement of commercial operation Continuous

* The *BC Environmental Assessment Act* requires that a review be completed within 180 days from submission of an Application. The review period must incorporate a public comment period of 30 to 75 days. A detailed review schedule will be published by the Environmental Assessment Office after the Application is accepted for review.
