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SECTION 1: APPLICANT INFORMATION

1.1 **Applicant:** MGM Energy Corp. (MGM)

Address: Suite 4100
350 7th Avenue SW
Calgary, Alberta T2P 3N9

1.2 Project Name: Umiak Seismic Programs (the Project)

Property Name: Umiak (Richardson Island)

Exploration Licence Number: EI 434 and SDL131

Closest Community(s): Tuktoyaktuk - 38 km to east; Inuvik -101 km to the south; Aklavik – 115 km to the southwest

Min/Max Latitude of Project Area: min lat 69°15'; max lat 69°35'

Min/Max Longitude of Project Area: min long 134 ° 00'; max long 134 ° 49'

1.3 Primary Company Contact: Glenn Miller

Title: General Manager, Regulatory and Community Affairs

Contact Number: phone (403) 781-7832, fax: (403) 781--7801

Alternate Contact Numbers: N/A

1.4 Field Contact: To be determined

Title:

Contact Number:

Alternate Contact Numbers:

1.5 List the contractors (i.e. Major, sewage, water) that will be involved in the project:
Company Name: Prime contractor and subcontractors to be determined.
Primary Contact:
Title:
Contact Number:
Alternate Contact Numbers:
Fax:

1.6 List all other permits or authorizations applied for:

Class B Water License (NWT Water Board)
Class A Land Use Permit (Indian and Northern Affairs Canada)
Class A Land Use Permit and Temporary Row-of-Way (TROW) (Inuvialuit Land Administration)(on Concession Lands only)
Geophysical Operation Authorization (National Energy Board)
Permit to Conduct Activities in a Migratory Bird Sanctuary (Canadian Wildlife Service)
Permit for Temporary Access to a Public Highway (GNWT Department of Transportation)
Magazine License (Natural Resources Canada)

See Section 3 (Regulatory Approvals) of the Project Description of the MGM Energy Corp. Umiak Seismic Project: 2008-2011 (PD) for more detail.

SECTION 2: PRE-SITE ASSESSMENT

2.1 Please complete the following chart for those items that currently exist in the project area - a snapshot of the area before your project commences. Attach a map depicting all of the indicated Items in the project area, as well as the surface drainage patterns and elevation contours.

				Description
A	Well sites	Yes ☒	Latitude:	Several wellsites in the region; See Section 13 (Cumulative Effects) and 16 (Other Environmental Assessment) of the Project Description.
		No ☐	Longitude:	
B	Waste dumps	Yes ☐	Latitude:	None known.
		No ☒	Longitude:	
C	Fuel and chemical storage areas	Yes ☒	Latitude: 69°12'30"	A bermed fuel storage tank and tank farm are located at Camp Farewell. Camp Farewell is not located within proposed seismic areas but is on potential access route.
		No ☐	Longitude: 135°06'04"	
D	Sump areas	Yes ☒	Latitude: 69°20	Encana N-05 sump
		No ☐	Longitude: 134°00'	
E	Wastewater discharge locations	Yes ☐	Latitude:	Exact locations unknown.
		No ☒	Longitude:	
F	Camps	Yes ☒	Latitude: 69°12'30"	Existing Camp Farewell in Kendall Island Bird Sanctuary; not located within seismic program area but is on proposed access.
		No ☐	Longitude: 135°06'04"	
G	Transportation routes	Yes ☒	Latitude:	Inuvik-Tuktoyaktuk winter road. Proposed access routes as shown in Figure 2 of the PD.
		No ☐	Longitude:	
H	Pingos	Yes ☐	Latitude:	None known.
		No ☒	Longitude:	
I	Staging areas	Yes ☒	Latitude:	Several pre-existing staging site including Camp Farwell, Taglu Tower, and other unnamed.
		No ☐	Longitude:	
J	Seismic lines	Yes ☒	Latitude:	Other seismic acquisition programs as outlined in Sections 13 (Cumulative Effects) and 16 (Other Environmental Assessment) of the PD.
		No ☐	Longitude:	
K	Parks and/or protected areas	Yes ☒	Latitude:	Kendall Island Bird Sanctuary (see Figure 1 of PD). A number of special designated

		No ☐	Longitude:	areas or management categories have been identified in Inuvialuit Community Conservation Plans, including Beluga Management Zones (Figure 1 of PD). See Section 9 (Traditional and Other Land Uses) in the PD for a complete list.
L	Wildlife Management Areas	Yes ☒	Latitude:	See Parks and/or protected areas above.
		No ☐	Longitude:	
M	Bird sanctuaries	Yes ☒	Latitude:	Intended access route adjacent to Kendall Island Bird Sanctuary (Figure 2 of PD).
		No ☐	Longitude:	
N	Trap lines	Yes ☐	Latitude:	The Project area is used for subsistence harvesting throughout the year, however no specific trap line locations have been identified at this time.
		No ☒	Longitude:	
	Other	Yes ☐	Latitude:	N/ A
		No ☐	Longitude:	

See Section 13 (Cumulative Effects) of the PD for a discussion of cumulative effects, including past activities in the Project area.

SECTION 3: WATER USE AND WASTE DISPOSAL

3.1 Water Use

Maximum quantity per day (m3): 3500 m³/day for access construction and seismic operations

Total quantity for project (m3): dependent on weather and the ongoing need to maintain ice pads and roads

Planned uses of water: Winter access construction; camp use; and for drilling of seismic shot holes (if required)

Operating capacity of the pump: To be determined based on contractor equipment specifications

Size of intake screen: 2.54 mm (or current DFO recommendation)

Source of potable water: Bottled or trucked from Inuvik, Aklavik or Tuktoyaktuk

3.1.2 Please provide information for each water source as required by the Department of Fisheries and Oceans: Protocol for Water Withdrawal for Oil and Gas Activities in the Northwest Territories".

Water is proposed to be taken from the Mackenzie River, associated channels and other suitable waterbodies. See Sections 5.5 and 12.5.1 of the PD.

3.2 Waste Disposal

3.2.1 Will a camp(s) be provided? Yes ☒ No ☐

If yes, indicate the maximum number of people that will be accommodated

Capacity: 156

Maximum Accommodated: 156

3.2.2 Will the camp remain in one place for the duration of the project, or move around? Please describe the camp type (e.g., sleigh camp) and attach diagrams of the proposed layout.

The Project will use a barge based camp and/or a temporary land-based camp, with the location dependent on the sequence of the program undertaken in a given year. Land-based camps will be constructed on a snow / ice pad a minimum of 15 cm thick, with a short ice road access that connects to the main access ice road. A land-based campsite will be approximately 4 ha in size, with the camp accommodation complex housing approximately 156 people at its peak. See Section, 5.7.1 (Camps and Staging Areas) of the PD for more details.

3.2.3 What is the proposed method of sewage and greywater treatment/disposal?

The contracted camp may be outfitted with an extended aeration, a membrane filter or otherwise suitable wastewater treatment system. If the contracted camp does not have a suitable wastewater treatment facility capable of meeting License requirements, MGM proposes to haul wastewater (including grey water and sewage) to the municipal treatment facility in Inuvik. See Sections 5.8.2 (Wastewater Treatment) and 12.5.2 (Water Disposal) of the PD for more details.

Please describe the treatment process.

If the contracted camp has an appropriate wastewater treatment facility, wastewater (including grey water and sewage) will be processed by the on-site sewage treatment system and released to the land, once water quality criteria have been met. In the event that disposal criteria cannot be met, the waste will be collected and transported to the municipal wastewater treatment facility in Inuvik. If the contracted camp does not have a suitable wastewater treatment facility capable of meeting License requirements, wastewater (including grey water and sewage) will be transported to the municipal wastewater treatment facility in Inuvik. See Sections 5.8.2 (Wastewater Treatment) and 12.5.2 (Water Disposal) of the PD for more details.

What is the maximum capacity per day (in m^3 and people) of the treatment system?

It will depend on the system provided with the contracted camp. It is estimated that 250 L per person of wastewater will be generated each day.

Please attach a diagram(s) of the treatment system labelling all of the major components.

This will be provided when the final determination is made on the wastewater treatment system.

3.2.4 Describe the manner in which the treated effluent will be disposed/ discharged to the environment:

Treated effluent will be released to the land when water quality criteria have been met.

For details See Sections 5.8.2 (Wastewater Treatment) and 12.5.2 (Water Disposal) of the PD for more details.

3.2.5 What other back-up methods are available for sewage and greywater treatment/ disposal (i.e. contingency)?

In the event that disposal criteria cannot be met, or the contracted camp does not have a wastewater treatment facility capable of meeting water license requirements, the waste will be collected and transported to the municipal wastewater treatment facility in Inuvik. See Sections 5.8.2 (Wastewater Treatment) and 12.5.2 (Water Disposal) of the PD for more details.

3.2.6 What is the proposed method of solid waste disposal?

Metals, plastics, refined oils and oily waste will be managed with an on-site waste separation system. Recyclable materials and plastics will be hauled to an appropriate handling facility upon program completion. Beverage containers will be recycled through the Inuvik recycling program. Combustibles and food wastes will be incinerated on-site daily, with the residue trucked out and disposed of at the Inuvik landfill. See Section 5.8.1 (Solid Waste) of the PD for more detail.

3.2.7 List all hazardous materials that will be used during the project as defined under the Transportation of Dangerous Goods Regulations.

The list of hazardous materials will be included as part of the Seismic Contractor's (to be determined) Emergency Response Plan Information and Notification Process. Typical hazardous materials include diesel fuel, gasoline, propane and aviation fuel.

3.2.8 Fuel Storage

Type of Fuel	Storage Volume	Storage/Containment	Location
Diesel	79,000 L	Mobile sloops	Throughout project area
Gasoline	7,572 L	Sloops	Camps, staging areas
Aviation Fuel	As needed	Barrels	Camps, staging areas
Propane	As needed	Tanks	Camps

3.2.9 What is the proposed method of hazardous waste disposal?

Any snow, debris or soil contaminated by spilled or leaked hydrocarbons will be hauled to an approved recycling or disposal location, or disposed of using an evaporator or diesel fired forced air incinerator specifically designed for that purpose, as appropriate. See also Section 5.8.1 (Solid Waste) and Appendix V (Emergency Response Plan) in the PD.

SECTION 4: SEISMIC PROGRAM INFORMATION

4.1 Program Type:

☒ **2D**
☒ **3D**

Methods Employed:

☒ **Tracked equipment**
☒ **Wheeled equipment** (on winter roads only)
☐ **Narrow width**
☐ **Hand-cut**
☐ **Enviro drills**
☐ **Heliportable**
☒ **Heli-assist**
☐ **Other:**

4.2 What type of energy source will be utilized in this program?

The energy source will be vibroseis and/or dynamite. See Section 5.6.6 (Energy Sources) of the PD.

Will explosives be used as an energy source on or near waterbodies? If so, please provide the depth and charge size.

Vibroseis may be used where source lines are over land or on bottom-fast ice. Dynamite may be used as an energy source throughout the Project or where source lines are over waterbodies greater than 400 m across. Where waterbodies less than 400 m across are encountered, the seismic program will be designed so that the energy points are stacked on either side of the waterbody with a buffer of 50 m, and the area will be undershot with vibroseis or dynamite.

An Aquatic Resources Protection Plan (ARPP) has been developed in collaboration with DFO which outlines charge size to burial depth relationship, designed to control maximum pressure changes so that harm is not done to aquatic resources.

See Section 5.6.6.2 (Dynamite) and Appendix II (Aquatic Resources Protection Plan) of the PD.

4.3 Will the project use existing seismic lines or create new ones?

Please provide a rationale for the creation of new lines in areas where lines previously exist.

The Project will require the creation of new seismic lines. The location of the seismic program and the configuration of the lines within each area have been selected based on interpretation of existing seismic data and wells drilled during past exploration work in the Delta, in consideration of environmental and community issues. The lines will be structured to avoid sensitive areas such as e.g., slopes, pingos, or bear dens. Final configuration will be confirmed after the Summer Field Reconnaissance. For more details, see Sections 5.2 (Seismic Line and Access Route Selection) and 5.6 (Seismic Program Description) of the PD.

Please attach a map indicating the proposed seismic lines, as well as any pre-existing lines.

Seismic lines have not been finalized and will be provided upon confirmation.

4.4 If existing lines are to be used please provide the distance (km) that will be utilized. How many kilometres of new seismic lines will be created?

Approximately 4,781 km of seismic (2D and 3D) may be acquired.

4.5 Will the clearing of vegetation/trees be required? If so, describe the method and the amount of clearing required.

It is expected that line clearing will only be required if thick willow stands are encountered.

Wherever possible, tracked units will be walked over the shrubs and snow such that disturbance is expected to be minimized. A 15 cm snow/ice layer will be maintained on all seismic lines on land. Mechanical cutting may be used to cut woody vegetation to the snow or ice level for safety reasons. See Section 5.6.4 (Line Clearing) of the PD.

4.6 What will be the width of the lines used in this project?

The proposed line width is 6 metres for both receiver and source lines.

4.7 What is the time frame of this project? Will this project be carried out and completed during frozen ground conditions?

The Project will be carried out over one or more of the 2008-2011 winter seasons. In any given year, pre-staging by barge, is scheduled to occur in July to October. Access and camp construction are scheduled to occur from November to January, and seismic operations are scheduled to occur from December to mid-April. Final inspection and clean up are scheduled to occur in summer and fall following winter activity. See Section 6 (Development Timetable) of the PD for a detailed Project timetable.

4.8 Please describe the methods in which equipment will be brought to the project area and provide a list of heavy equipment that will be transported to the site.

Equipment would be brought to the Project site via barges and ice roads. Several potential barging landing and staging sites have been identified (Figure 2 of the PD). Ice roads will be developed linking to the Inuvik-Tuktoyaktuk ice road. Section 5.6.1 (Equipment) and Table 5.2 of the PD provides a list of proposed heavy equipment that may be used during the Project.

4.9 Describe any access routes and their method of construction. How many streams will be crossed? Will any stream crossings greater than 5m be required?

Winter access will be on the various channels of the Mackenzie River. See Section 5.2 (Seismic Line and Access Route Selection), 5.3 (Project Component Construction), 5.6.5 (Lines Crossing Waterbodies), and 12.5.4 (Ice Roads) in the PD for more details.

SECTION 5: CONTINGENCY, ABANDONMENT AND RESTORATION PLANNING

5.1 Attach the proposed or existing contingency plan which describes course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials (in compliance with NWT Water Board Guidelines for Contingency Planning, 1987).

See Appendix V (Emergency Response Plan) in the PD.

5.2 Outline the planned abandonment and restoration procedures.

See Section 15 (Cleanup, Reclamation, Disposal and/or Decommissioning Plan) in the PD.

SECTION 6: ENVIRONMENTAL ASSESSMENT AND SCREENING

6.1 Has this project ever undergone an initial environmental assessment, including previous owners? If yes, by whom/when?

In 2007, several MGM seismic, drilling and summer reconnaissance programs underwent environmental screenings by the EISC and obtained regulatory approval. These include the North Ellice and Olivier 3D seismic programs, Ogruknang 2D seismic program, 2007 to 2009 Summer Field Assessment program, and MGM drilling programs. Within the Mackenzie Delta, a number of other oil and gas project assessments have been completed, and other studies have occurred, which are generally relevant and provide background information on baseline data and potential impacts in the Delta region. These are listed in Section 16 (Other Environmental Assessment) in Table 16.1.

6.2 What baseline data has been collected for the water bodies you intend to cross, do seismic in, or draw water from in the area? Please attach data.

See Section 11.5 (Aquatic Resources) in the Project Description.

6.3 What baseline data has been collected and evaluated with respect to the biophysical components of the environment potentially affected by the project (wildlife, soils, air quality, etc.)? Please attach data.

See Section 11 (Environmental Overview), Section 12 (Proposed Mitigation and Anticipated Environmental Impacts) and Section 16 (Other Environmental Assessments) in the PD.

6.4 What community consultation has been done in regards to this project? Provide details of the program.

See Section 10 (Community Consultation) and Appendix III (February 2008 Community Consultation) in the PD for detailed information about the community consultations in Inuvik, Aklavik and Tuktoyaktuk in February 2008.

6.5 Please provide the following information:

a) Description of the environment (including known historic sites, results of any archaeological assessments, location of survey monuments, wildlife, waterbodies, etc.)

See Section 11 (Environmental Overview) in the PD for a complete environmental overview of the Project area.

b) Potential environmental impacts (including cumulative and socio-economic effects).

See Section 12 (Proposed Mitigation and Anticipated Environmental Impacts), and Section 13 (Cumulative Effects) in the PD.

c) Proposed mitigation to potential environmental impacts.

See Section 12 (Proposed Mitigation and Anticipated Environmental Impacts) in PD.

d) Any follow-up or monitoring programs to be implemented to verify effectiveness of mitigation measures.

See Section 12.8 (Mitigation Implementation) of the PD.

SECTION 7: LIST OF ATTACHMENTS

Question Number	Title	Section Number
1.6	MGM Umiak Seismic Project: 2008-2011	3
2.1	As above	9, 13, and 16
3.2.2	As above	5.7.1, Fig. 2
3.2.3	As above	5.8.2, 12.5.2
3.2.4	As above	5.8.2, 12.5.2
3.2.5	As above	5.8.2, 12.5.2
3.2.6	As above	5.8.1
3.2.9	As above	5.8.1, Appendix V
4.2	As above	5.6.6, Appendix II
4.3	As above	5.2, 5.6
4.5	As above	5.6.4
4.7	As above	6
4.8	As above	5.1, 5.6.1, Fig. 2
4.9	As above	5.2, 5.3, 5.6.5, 12.5.4
5.1	As above	Appendix V
5.2	As above	15
6.1	As above	16
6.2	As above	11.5
6.3	As above	11, 12, 16
6.4	As above	10, Appendix III
6.5a	As above	11
6.5b	As above	12, 13
6.5c	As above	12
6.5d	As above	12.8