Notice of Work
Quarry - Construction Aggregate

Application ID:2123

APPLICANT COMPANY/ORGANIZATION CONTACT INFORMATION

Name	MALAHAT INVESTMENT CORPORATION
Contact Name	Rene' Bourdain
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Mailing address	204 - 655 TYEE ROAD VICTORIA, BC V9A6X5 CANADA

TECHNICAL INFORMATION

APPLICATION INFORMATION

Type of notice of work:	Quarry - Construction Aggregate
Is this a New Permit or an Amendment to an existing permit for this property?	Amendment

MINE INFORMATION

Do you have an existing mine number?	Yes
Mine Number:	0800407
Name of the Property:	Bamberton Quarry
Tenure Numbers:	
Crown Grant / District Lot numbers:	DL 118, DL 73, DL 135, DL 183, DL 95, DL 127
Detailed directions to the site:	The property is located 5 kilometres south of Mill Bay. To access the property from Mill Bay travel south on the Trans-Canada Highway, exit to the right onto Mill Bay Road, turn right on Trowsee Road to the site. The property is located 23 kilometres north of Langford. To access the property from Langford travel north on the Trans-Canada Highway, exit to the right onto Bamberton Road, turn right onto Trowsee Road to the site.
Geographic Coordinates of Mine:	Latitude: 48.59070 Long: -123.52525
Maximum Annual Tonnage Extracted:	240,000

PROPOSED ACTIVITIES

Activities to be undertaken:	Blasting Sand and Gravel Quarry Operations Settling Ponds

FIRST AID

Proposed First Aid equipment on site:	Level 1 first aid kit located at site office
Level of First Aid Certificate held by attendant:	Occupational First Aid Level 1 with Transportation Endorsement

DESCRIPTION OF WORK PROGRAM

see attached document

TIME OF PROPOSED ACTIVITIES

Proposed start and end date:	Jul 01 2019 to Jun 01 2039

Please remember that you need to give 10 days notice to the Inspector of Mines of your intention to start work, and 7 days notice of your

intention to stop work.

ACCESS

Is access presently gated?	Yes
Key provided to the Inspector?	Yes

PRESENT STATE OF THE LAND

Present condition of the land:	The Bamberton properties consist of 525 hectares which are situated within the Cowichan Valley Regional District on lands that included part of a cement plant that operated from 1912 to 1980. Recently, several of these properties surrounding and including the mine permit area were acquired by Malahat Investment Corporation (MICO) which is owned by the Malahat Nation except for one southern lot (DL 183) which was acquired by the Province of BC in the same transaction. The Trans-Canada Highway is located to the west and the Saanich Inlet to the east. Crown land and private land holdings can be found adjacent to the property boundary to the north, west and south. The existing mine permit area covers 39.3 hectares of which 11 hectares are disturbed from past quarry activities. An additional 1.6 hectares within the quarry footprint contain a reclaimed soil storage facility.
Type of vegetation:	Second growth mixed coniferous, deciduous forest canopy over a sparsly covered forest floor. Trees incude arbutus, cedar, spruce and fir.
Physiography:	The quarry exposure is positioned above the 6 metre contour line and extends to the 220 metre contour line on the east facing side of Mount Jeffrey which is characterized by steep slopes.
Current means of access:	From Trans Canada Highway to paved connector and existing industrial roads. Marine access is by docking facility located along the foreshore.
Old equipment or buildings:	Site office and scale, water pump house, rock wall.
Recreational trails/use:	none

ACCESS TO TENURE

Do you need to build a road, create stream crossings or other surface disturbance that will not be on your tenure?	No

LAND OWNERSHIP

Application area in a community watershed:	No
Proposed activities on private land:	Yes
Notice served to all parties on private lands:	Yes
Legal description of land:	DL 118, DL 73, DL 135, DL 183, DL 95, DL 127, Malahat District
Any proposed activities on Crown land:	No
Activities in a park:	No

CULTURAL HERITAGE RESOURCES

Are you aware of any protected archaeological sites that may be affected by the proposed project?	No

FIRST NATIONS ENGAGEMENT

Have you shared information and engaged with First Nations in the area of the proposed activity?	Yes
First Nations Engagement activities:	see record attached

Aware of cultural heritage resources in the area where the work is proposed: No

BLASTING

Activities Where Blasting Will Take Place: Sand & Gravel / Quarry Operations

ONSITE STORAGE OF EXPLOSIVES

Proposing to store explosives on site: No

How will explosives get to the site: The blasting contractor with a valid certificate will be responsible for transporting and handling the explosives to and on site.

SETTLING PONDS

Waste water treatment facility description: The management of drainage courses and storm flows in and around the extraction site is required to minimize the deposit of sediment and other possible contaminants into the local aquatic drainages and adjacent marine shoreline. The existing and proposed extraction work will be undertaken and completed in a manner as to prevent the direct or indirect discharge of soils, sediment and/or sediment-laden water or any other deleterious substances into any watercourse. Surface water flows containing suspended sediments are controlled using surface contouring, strategically located water containment berms, and control traps and settlement ponds. Water flows are contained within the extraction areas by maintaining grade elevations that are strategically sloped, maintaining undisturbed buffer strips and installing ditches/berms along the perimeter of the extraction sites. Water is confined and allowed to naturally evaporate and/or percolate into the porous adjoining subsurface limiting the escape of surface water. Captured surface water within the quarry is also recycled as part of the dust control program and material washing. Figure 3 â Existing Surface Map outlines the current drainage courses in and around the extraction site. Water and sediment is collected in suitably designed settling ponds. Contained solids in the pond overflow is targeted not exceed 25 ppm.

During the full life cycle of the quarry operation, water management planning will be continually updated for each new phase of the mining sequence. New in-pit settlement ponds and water courses will be constructed as required for each phase of mining. The planned final surface water flows and controls are shown in Figure 7 â Final Surface Water Management Plan. This plan strives to keep pre-existing water courses to their original location and condition where-ever possible.

ACTIVITIES

Pond Id	Width (m)	Length (m)	Depth (m)	Disturbed area (ha)	Merchantable timber volume (m^3)
Phase 1 Pond	2.00	50.00	1.00	0.01	0.00
Water Source:	surface run off and Phase 2A Pond				
Construction Method:	excavated				
Phase 2B Pond	6.00	6.00	1.00	0.01	0.00
Water Source:	surface run off				
Construction Method:	excavated				
Phase 2C Pond	6.00	10.00	1.00	0.01	0.00
Water Source:	surface run off				
Construction Method:	excavated				

Pond Id	Width (m)	Length (m)	Depth (m)	Disturbed area (ha)	Merchantable timber volume (m^3)
Phase 4 Pond	6.00	6.00	1.00	0.01	0.00
Water Source:	surface run off				
Construction Method:	excavated				
Phase 2A Pond	6.00	6.00	1.00	0.01	0.00
Water Source:	surface run off				
Construction Method:	excavated				
Totals				0.05	0.00

Disposal of fines from clean out: Very limited fines, cleanout is unlikely. If required fines will be placed in overburden stockpile.

Water from ponds will be:

Recycled: Yes

Exfiltrated to Ground: Yes

Discharged to Environment: No

RECLAMATION PROGRAM

Reclamation and timing for this specific activity: The final phase of the quarryâs water management plan will be developed to assist in transition to the drainage scheme for the site after final reclamation is completed. This includes constructing water courses and catchment/retention ponds in appropriate areas of the quarry for final use. Water courses and structures will be developed to be compatible with future land uses. The plan will be for long-term water quality to be maintained to an acceptable standard and contained solids in final pond overflows to not exceed 25 ppm. Where possible, drainages will be restored to their original condition. If not, drainages will be diverted into new watercourses which will sustain themselves without maintenance. The level of productivity of these watercourses will not be less than conditions that existed prior to mining.

Estimated cost of reclamation of activities described above: 0.00

SAND & GRAVEL / QUARRY OPERATIONS

SOIL CONSERVATION

Average depth of overburden (m): 2

Average depth of topsoil (m): 0.2

Measures to stabilize soil overburden stockpiles and control noxious weeds: Temporary topsoil and overburden stockpiles will be stabilized on level ground contoured and seeded with appropriate grass and will be routinely monitored for erosion and the appearance of noxious weeds. All excavated surface materials will be stored in suitable locations and protected from erosion.

LAND USE

Is the site within the Agricultural Land Reserve? No null

Local government has a Soil Removal Bylaw? Yes

Official Community Plan for the site is: Rural resource and industry.

Current land use zoning for the site is: Rural resource, light industry and heavy industry.

Proposed end land use is: Mixed residential, business, light industry and heavy industry

Estimate total minable reserves over the life of the mine: 19000000 tonnes

Estimate annual extraction from site: 479000 tonnes/year

Activities

Activity	Disturbed Area (ha)	Merchantable timber volume (m^3)
Excavation of Pit Run	30.00	0.00
Crushing	0.20	0.00
Mechanical Screening	0.10	0.00
Washing	0.10	0.00
Total	**30.40**	**0.00**

Is the work year round or only seasonal?	Year round
Brief description of operation, including proposed work schedule	Mining activities will take place approximately 300 days per year. Crushing, screening and pneumatic/hydraulic rock work, product sales and shipping will be conducted 7 days per week. The primary hours of work will be 7:00 am to 7:00 pm with 24 hour operation used when required.

RECLAMATION PROGRAM

Reclamation and timing for this specific activity:	The end land use for the properties has been identified as mixed residential, commercial, light industry and heavy industry. Extraction and reclamation plans are being designed with the intent of accommodating and facilitating these types of future development. Currently, mining at the Bamberton Quarry has directly disturbed a total of 11.0 hectares of the property. Extending the existing quarry in the five year plan would add 8.5 hectares of disturbed ground. The combined mine disturbance area after this proposed work has been completed would be approximately 19.5 hectares. Progressive restoration activities will be incorporated in the overall mine plan that includes preparation of areas for future use, and the maintenance and monitoring of environmental management plans.
If backfilling of pits or pit slopes is proposed in the final configuration for reclamation, details of materials to be used and placement procedures:	Residual high-walls will be properly scaled and have appropriate catch benches installed and maintained. The final high-wall reclamation will include the planting of fir trees along the inner edge of the catch benches where appropriate. Any smaller back slopes will be re-sloped to a minimum 2:1 grade and re-vegetated to a self-sustaining state using appropriate plant species. Final ground level elevations will be graded towards (1 to 3% grade) catchment ponds located at the edge of the final quarry floors. Backfilling of pits or pit slopes will include previously stockpiled overburden and approved imported fill materials that is free of inappropriate debris, wood or toxic substances will be used as part of the reclamation program. To cap the fill materials and enhance the re-vegetation, stockpiled topsoil will be spread in 0.6 metre lifts and compacted appropriately.
Will progressive reclamation be carried out?	Yes
Maximum unreclaimed disturbance at any given time:	17.80
Estimated cost of reclamation of activities described above:	$40,000.00

GROUNDWATER PROTECTION

Average depth to the high groundwater table at the proposed excavation (m):	14.00
Elevation of the groundwater table was determined from:	Test wells drilled for this purpose
Measures proposed to protect groundwater from potential impacts of the proposed mining activity:	Proposed base of quarry will be maintained 2 metres above the groundwater table. Pit floor will be routinely monitored for any significant water infiltration and sediment control procedures will be in-place at all times. A Hydrocarbon Management Plan (see attached) has been developed and implemented.

IMPACT MINIMIZATION

Shortest distance between proposed excavation to nearest residence (m):	1,000.00
Shortest distance between proposed excavation to nearest residential water source (m):	10,000.00
Measures to prevent inadvertent access of unauthorized persons to the mine site:	Access routes into the excavation areas will be gated or use other forms of barricades. Appropriate barriers will be used to control access into any danger areas and warning signs will be posted in unguarded areas. Existing measures plus natural topography make this a secure site.
Measures to minimize noise impacts of the operation:	Noise issues are commonly associated with blasting, and the operation of equipment and machinery during working activities. Noise mitigation measures for use in the operation include the following: Operating within defined work times, Maintaining berms and/or placement of gravel stockpiles in strategic locations to provide a barrier effect to the receiver locations, Orientation of the equipment to direct noise away from the receptor location, Locating noise sources at lower depths (bottom of excavation), Keeping equipment maintained for peak efficiency and overall reduction of noise, Operator awareness when operating equipment, and Night time substitution of back-up alarms with strobe warning lights.
Measures to minimize dust impacts of the operation:	The most significant source of dust to be controlled is from trucks traveling within the pit as well as dust from stockpiles and crushers. The dust control program for the site will include the following: Regular application of dust suppressants (e.g. water sprinkling), Drilling machinery will be equipped with dust collectors, Use of vegetative coverings on overburden stockpiles and filled reclamation slopes, and Watering and sweeping of access routes.
Measures to minimize visual impacts of the operation:	Existing vegitative barriers will be maintained. Progressive restoration will focus on more visible upper rock wall areas.

TIMBER CUTTING

Total merchantable timber volume (m^3): 0.00

EQUIPMENT

Quantity	Type	Size/Capacity
1	Loader	972H FEL 7.5 yard bucket
1	Loader	980H FEL 8 yard bucket
1	Bulldozer / Crawler Tractors	D6M
1	Truck	400D 36 tonnes
1	Excavator	ZX470-5 2 yard bucket
1	Crusher	Keestrack Jaw/Cone 200 tonne/hr

SUMMARY OF RECLAMATION

Activity	Total Affected Area (ha)	Estimated cost of reclamation ($)
Sand and Gravel etc.	30.40	$40,000.00
Settling Ponds	0.05	$0.00

Subtotal:	30.45	$40,000.00
Unreclaimed disturbance from previous year:	7.20	
Disturbance planned for reclamation this year	1.50	
Total	36.15	$40,000.00

OTHER CONTACTS

Contact Info

Type of Contact:	Mine Manager Referral Point
Name:	Rick Hannah
Phone:	(778) 356-4056
Email:	rick@coastmountainresources.com
Mailing Address:	116-967 LANGFORD PARKWAY LANGFORD BC V9B 0A5 CANADA

Contact Info

Type of Contact:	Site Operator
Company/Organization:	Coast Mountain Resources Ltd.
Contact Phone:	(778) 356-4056
BC Incorporation Number:	BC9896262
GST Registration Number:	822390175RT001
Contact Address:	1451 TROWSEE ROAD MILL BAY BC V0R 2P4 CANADA

Contact Info

Type of Contact:	Permittee
Company/Organization:	Malahat Investment Corp.
Contact First Name:	Rene
Contact Last Name:	Bourdin
Contact Phone:	(250) 743-3737
Contact Email:	rene@malahatinvestment.ca
Contact Address:	1451 TROWSEE ROAD MILL BAY BC V0R 2P4 CANADA

LOCATION

MAPS

Description	Filename
Figures 1 to 7 Maps and Plans	2 NOW 2019 BAMBERTON QUARRY FIGS 1 TO 7 MAPS AND PLANS.pdf
Figures 8 to 14 Cross Sections	3 NOW 2019 BAMBERTON QUARRY FIGS 8 TO 14 CROSS SECTIONS.pdf
2019 Proposed Permit Area shp	2019 Proposed Permit Area.shp
2019 Proposed Permit Area dbf	2019 Proposed Permit Area.dbf
2019 Proposed Permit Area prj	2019 Proposed Permit Area.prj
2019 Proposed Permit Area shx	2019 Proposed Permit Area.shx

2016 Permitted Area shp	2016 Permitted Area.shp
2016 Permitted Area dbf	2016 Permitted Area.dbf
2016 Permitted Area prj	2016 Permitted Area.prj
2016 Permitted Area shx	2016 Permitted Area.shx
2019 Mining Phases shp	2019 Mining Phases.shp
2019 Mining Phases dbf	2019 Mining Phases.dbf
2019 Mining Phases prj	2019 Mining Phases.prj
2019 Mining Phases shx	2019 Mining Phases.shx

DOCUMENTS

Document Type	Description	Filename
Archaeological Chance Find Procedure	ACFP document	NOW 2019 BAMBERTON QUARRY ACFP.pdf
Blasting Procedure	Blasting procedure document	NOW 2019 BAMBERTON QUARRY BLASTING PLAN.pdf
Record of First Nations Engagement	Malahat Nation letter of support	MALAHAT NATION Letter of Support.pdf
Mine Emergency Response Plan	Emergency response plan	Copy of NOW 2019 BAMBERTON QUARRY ER PLAN.pdf
Other	Hydrocarbon plan	NOW 2019 BAMBERTON QUARRY HYDROCARBON PLAN.pdf
Other	Appointment letter	COAST MOUNTAIN Appointment Letter.pdf
Other	Description of work plan	NOW 2019 BAMBERTON QUARRY NOW.pdf

Privacy Declaration

PRIVACY NOTE FOR THE COLLECTION, USE AND DISCLOSURE OF PERSONAL INFORMATION

Personal information is collected under the legal authority of section 26 (c) and 27 (1)(a)(i) of the *Freedom of Information and Protection of Privacy Act (the Act)*.

The collection, use, and disclosure of personal information is subject to the provisions of the Act. The personal information collected will be used to process your inquiry or application(s). It may also be shared when strictly necessary with partner agencies that are also subject to the provisions of the Act. The personal information supplied in the application package may be used for referrals or notifications as required. Personal information may be used for survey purposes.

For more information regarding the collection, use, and/or disclosure of your personal information, please contact FrontCounter BC at 1-877-855-3222 or at

FrontCounter BC Program Director
FrontCounter BC, Provincial Operation
441 Columbia Street
Kamloops, BC V2C 2T3

☑ **This check indicates that you have read and agree to the privacy declaration stated above.**

REFERRAL INFORMATION

Some applications may be passed on to other agencies, ministries or other affected parties for referral or consultation purposes. A referral or notification is necessary when the approval of your application might affect someone else's rights or resources or those of the citizens of BC. An example of someone who could receive your application for referral purposes is a habitat officer who looks after the fish and wildlife in the area of your application. This does not apply to all applications and is done only when required.

Name:	Rick Hannah
Phone:	(778) 356-4056
Email:	rick@coastmountainresources.com

Mailing Address:

116-967 LANGFORD PARKWAY
LANGFORD BC V9B 0A5
CANADA

☑ **I hereby grant permission for the public release of the information provided above. This information will be used to fulfill, if required, the referral and advertising requirements of my application.**

IMPORTANT NOTICES

DECLARATION

☑ By submitting this application form, I, declare that the information contained on this form is complete and accurate.

OFFICE

Office handling the application: Nanaimo

PROJECT INFORMATION

Authorization Request Type: Mines Notice of Work