

INFORMATION REGARDING THE COMPLETION OF THE NOTICE OF WORK AND RECLAMATION PROGRAM FOR A SAND & GRAVEL/QUARRY OPERATION

The information on this form and any supporting documents are subject to the Freedom of Information and Protection of Privacy Act. The information requested on this form is collected and used for the purpose of administering the Mines Act & Health, Safety and Reclamation Code for Mines in British Columbia. The Mines Act of British Columbia also authorises the collection of the requested information on this form. The completed form is routinely available to the public. Questions about how the Freedom of Information and Protection of Privacy Act applies to the information collected on this form can be directed to the Information Access and Records Services Branch at (250) 952-0514; fax (250) 952-0739 or write to: PO Box 9325 Stn Prov Gov't, Victoria, British Columbia, V8W 9N3.

This form is to be filled out in **black ink**, either **typed** or **printed**.

This form is to be completed and signed by a company official or individual planning to commence operations for the extraction of sand and gravel and/or quarry materials; or planning to amend an existing operation; or providing an updated mining plan for an existing operation. Keep one copy and forward the original to the Inspector of the Regional Mining Operations office.

This form provides notice pursuant to Section 10 of the *Mines Act* and must be submitted to the Inspector for review and approval prior to commencement of work. This notice of work will be referred to other agencies for their comments and the applicant may be required to advertise and gazette his/her intention to open a sand and gravel pit and/or quarry.

The notice of work form must be accompanied by suitable maps, including detailed plans and sections of the proposed work area. Maps required are detailed in schedule A of this application.

The application will be returned if it is not accompanied by legible and suitable maps.

The applicant should attach all other approvals to the application, such as a Soil Removal Bylaw permit or Land Reserve Commission approval.

The applicant should allow for a 45 day review time in a standard situation, but a longer review time may be required in more sensitive sites.

Notices of work that are faxed to the Mining Operations office will be accepted. Please forward the **six copies** by mail.

1

REGIONAL OFFICES

Ministry of Energy and Mines Northwest Regional Office 3793 Alfred Avenue Bag 5000 Smithers, British Columbia V0J 2N0

Ph: (250) 847-7383 Fax: (250) 847-7603

Ministry of Energy and Mines Northeast Regional Office 2275A Quinn Street Prince George, British Columbia V2N 2X4

Ph: (250) 561-5600 Fax: (250) 561-5622

Ministry of Energy and Mines South Central Regional Office 162 Oriole Road Kamloops, British Columbia V2C 4N7

Ph: (250) 371-6051 Fax: (250) 371-6070

Ministry of Energy and Mines Kootenay Regional Office 2nd Flr., 42 - 8th Avenue S. Cranbrook, British Columbia V1C 2K3

Ph: (250) 426-1557 Fax: (250) 426-1652

Ministry of Energy and Mines Vancouver Island & Lower Mainland PO Box 9320, Stn Prov Govt 4th Flr., 1810 Blanshard Street Victoria, British Columbia V8W 9N3

Ph: (250) 952-0495 Fax (250) 952-0481



Sand and Gravel/Quarry Operation Notice of Work and Reclamation Program

The information on this form and any supporting documents are subject to the Freedom of Information and Protection of Privacy Act. The information requested on this form is collected and used for the purpose of administering the Mines Act & Health, Safety and Reclamation Code for Mines in British Columbia. The Mines Act of British Columbia also authorises the collection of the requested information on this form. The completed form is routinely available to the public. Questions about how the Freedom of Information and Protection of Privacy Act applies to the information collected on this form can be directed to the Information Access and Records Services Branch at (250) 952-0514; fax (250) 952-0739 or write to: PO Box 9325 Stn Prov Gov't, Victoria, British Columbia, V8W 9N3.

Application is for: This application is for (check one): Development Amendment to existing permit Application is being made by: Owner (Private property) Operator/Agent (Person or company making application of Name Company (if applicable)	on Crown land or on private property not owned by applicant) E-mail Address:
Address	
City	
Province Postal Code	Fax ()
LOCATION INFORMATION - Maps are mandatory under Sche Name of Mine (What will the operation be called when in production? Legal Description of Property:	?):
Street Address of Property, if applicable:	
Access route from nearest town to property:	
B.C. Geographic System Map Sheet Number(s) [i.e. TRIM 093L.006] Northing: Easting: or NTS Map Sheet Number(s) [i.e. NTS 093L/14E]: Latitude:o/'/"	UTM Zone:
OWNERSHIP (Complete a, b or c if the land is not privately he a) Proposed mine is on private land: Name of property owner Address City Province Postal Code Signature of owner agreeing to the mining operation proposed in this	Bus. Phone () Fax ()
Name:	iry date of Licence/Lease (y/m/d):eral Tenure Act):
MANAGEMENT Correspondence regarding this application should be sent to: The mine manager (<i>Mines Act</i> Sections 21 and 22) responsible for manager. Name:	•



Sand and Gravel/Quarry Operation Notice of Work and Reclamation Program

LAND USE

1) <u>Cultural Heritage Resources</u> (A <u>cultural heritage resource</u> is defined as "an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an aboriginal people" B.C. law requires the conservation of these resources. It is the responsibility of the applicant to identify these resources.								
Are you aware of any cultural heritage resources present on the property? Yes - please attach a plan for the conservation of cultural heritage resources on the property No - if cultural heritage resources are discovered while mining, you are required to report them to the Mining Division	n.							
2) Soil Conservation								
Average depth of overburden (material, including topsoil, overlying sand, gravel and/or rock): cm, or	m							
Average depth of topsoil (Surface to maximum rooting depth of plants, plus 15 cm.): cm, or m								
Measures to stabilize soil/overburden stockpiles and control noxious weeds:								
Topsoil must be conserved for reclamation of the mine site. Removal of topsoil from the site requires written approval of the Inspector								
3) End Land Use								
Is the site within the Agricultural Land Reserve?								
☐ No ☐ Yes - authorization for soil removal from the Land Reserve Commission and Regional District must be								
obtained. Provide permit application number if available:								
Is the site within the Forest Land Reserve?								
☐ No ☐ Yes - authorization from the Land Reserve Commission must be obtained								
Is the site within a Tree Farm Licence?								
☐ No ☐ Yes - state the TFL number:								
Name of TFL holder:								
Does the local government have a Soil Removal Bylaw?								
☐ No ☐ Yes - please be aware that a Soil Removal Permit may be required by the local government								
Official Community Plan designation for the site is:								
Current land use zoning for the site is:								
Proposed end land use is:								
4) Reclamation of Site (If space provided below is insufficient, please attach separate sheet describing proposed reclamation)								
Reclamation measures and schedule proposed to achieve end land use objectives as per part 10.7.4 and 10.7.5 of the Health Sar and Reclamation Code for Mines in British Columbia (hereafter referred to as the Code):	et							
If backfilling of pits or pit slopes is proposed in the final configuration for reclamation, provide details of materials to be used and placement procedure:								



MINE DEVELOPMENT PLAN (Maps are mandatory - please refer to Schedule A)

Unless otherwise required by the Inspector, complete the following mine development plan and prepare development maps and cross sections based on a period of 5 years or less. Mines operating for longer than 5 years, may be required to file updated Notices of Work every 5 years over the life of the mine at the discretion of the District Inspector. Proposed start date (y/m/d): Proposed finish date (y/m/d): The mining operation will generally be (check one)

Continuous (operates throughout the year) Seasonal, usually operates from ______ to ___ Intermittent (occasionally operates with extended periods of inactivity) Estimate total mineable reserves over the life of the mine: Estimated annual extraction from site: ______tonnes/yr, or ______m³/yr Application must be made to the Environmental Assessment Office if estimated extraction for sand/gravel production is 500,000 tonnes/yr. or 1,000,000 tonnes over 4 years; or if estimated extraction is 250,000 tonnes/yr. for quarried product. Mineral quarries producing more than 1000 tonnes per year per claim require a mining lease. **Description of Work** (Check appropriate boxes): Excavation of Pit Run Washing - please complete Schedule B Crushing ☐ Blasting - please complete Schedule C ☐ Crusning
☐ Mechanical Screening Timber Clearing * - estimate volume of timber: m³ * Timber Clearing on Crown Land requires a Free Use Permit or License to Cut from the Ministry of Forests Provide a brief description of operation, including proposed work schedule (i.e. hours, days of usual operation): **Equipment List**: (Please attach separate list if space provided below is insufficient) Type of Machine Make/Model Size/Capacity # on Site Surface Disturbance - Information provided must be documented in development maps submitted under Schedule A (Note that $10.000 \text{ m}^2 = 1 \text{ hectare}$) **Existing Disturbance** (Work areas, unreclaimed areas, access roads, etc.) _____ m², or _____ hectares **Proposed Mining Disturbance** (New work areas, settling ponds, access roads, _____ m², or _____ hectares buildings, etc. to be developed within the time frame of this Notice of Work) Total Disturbed Area (Existing + Proposed Disturbance) _____ m², or _____ hectares Will any portion of this disturbance be reclaimed within the time frame of this Notice of Work? Yes - state size of area to be reclaimed: ______ m², or _____ hectares □ No Estimated Cost of Reclamation: **Applicant** \$ Mining Division



Sand and Gravel/Quarry Operation Notice of Work and Reclamation Program

Are settling ponds or other structures proposed to control sedimentation in surface run off? No Yes - please complete Schedule B
What is the average depth to the high groundwater table at the proposed excavation?m Elevation of the groundwater table was determined from (check applicable boxes): Existing area wells Test wells drilled for this purpose Test pits Other (describe) Describe measures proposed to protect groundwater quantity and quality from potential impacts of the proposed mining activity (i.e. fuel management program, buffer above water table, etc.):
Note that excavations below the groundwater table may require special approval from the Inspector
Will fuel/lubricants be stored on site? No Yes If yes, handling, transportation and storage must adhere to B.C. Environment standards as detailed in "Summary of Environmental Standards and Guidelines for Fuel Handling, Transportation and Storage, 2 nd edition"
Shortest distance between proposed excavation to nearest residence: m, or km
Shortest distance between proposed excavation to nearest residential water source:m, orkm Describe measures proposed to prevent inadvertent access of unauthorized persons on the mine site (i.e. fencing, vegetative barriers, berms, etc.):
Are measures proposed to minimize noise impacts of the operation? (i.e. equipment selection, restrictions on hours of operation, noise barriers, etc.) No Yes - Please describe:
Are measures proposed to minimize dust impacts of the proposed operation? (i.e. apply dust suppressants, water sprays, wind breaks, vegetation, etc.) No Yes - Please describe:
Are measures proposed to minimize visual impacts of the proposed operation? (i.e. vegetative barriers, berms, green belts, etc.) No Yes - Please describe:
OCCUPATIONAL FIRST AID
First Aid Supplies and communication at the mine site are required as per Parts 3.6.1 to 3.6.3 of the Code.
Describe the means of communication from the mine site: Location of nearest hospital: Travel time to hospital: Describe First Aid Level and supplies Estimated number of employees on site (includes contractors): Describe First Aid Level and supplies
I,, hereby make application to undertake the mining activities described in this Notice, and in accordance with the <i>Mines Act</i> and the Health, Safety and Reclamation Code for Mines in British Columbia.
Applicant Signature Date

Applications will be returned if not accompanied by legible and suitable maps

Schedule A1 (compulsory): Location map (1:50,000 scale)

Indicate the location of the property with respect to local communities

Schedule A2 (compulsory): Local Features map (1:20,000 scale - TRIM map)

Map should show topography, water courses, existing access and/or proposed new or upgraded access, the location of proposed mining area, and location (if known) of historical/cultural resources. If applicable, locate the boundaries of Forest Land Reserves and Agricultural Land Reserves on the map.

Schedule A3 (compulsory): Land Title map

The subject parcel and adjacent properties must be clearly identified and the following items detailed:

- location of all structures and wells within 300 metres of proposed mining area
- identify current land uses on adjoining properties (i.e. forested, chicken farm, etc.)

Schedule A4: Mineral Tenure map (at scale maintained by Mineral Titles Branch for subject area)

Mineral Tenure map(s) are required if quarrying a mineral (as defined under the Mineral Tenure Act)

Schedule A5: Terrain/geology and Terrain Stability Map (1:20,000 scale)

Terrain map(s) are required:

- for excavations on slopes greater than 50%, and/or
- for excavations in areas with a stability rating of Class IV or V; or
- if requested by the Inspector

The Inspector may require a "Detailed Terrain Stability Assessment" and/or a "Soil Erosion Hazard Assessment".

Schedule A6 (compulsory): Mine Development Plan at 1:5,000 or more detailed scale

The District Inspector may require a mine plan to be prepared by a suitable qualified P.Eng/Geol based on a topographical site survey, terrain stability and erosion hazard assessments.

All plans and sections must indicate the scale and orientation of the drawing (please refer to attached sample)

1) Plan View of Proposed Development

Must illustrate the location of:

- Property boundaries and set back of excavation from property boundary
- Watercourses and drainages (wet, dry or intermittent) on the property and within 150 metres of its boundaries
- All previous surface workings, the final boundaries of proposed excavation, and boundaries of excavation at the end of development described in Notice of Work (please specify on drawing)
- Access roads, including development roads within the pit and access to public road(s)
- All proposed and existing stockpiles (i.e. topsoil, overburden, product, etc.)

Where applicable, show location of:

- All settling ponds (for both surface run off and process water) and source of process water
- Buildings and other facilities (i.e. fuel/lubricant storage, sanitary facilities, weigh scale, etc.)
- sediment control structures and the location of any point discharges from the property
- Fencing, berms, and/or vegetative buffers

1) Cross Sections of Proposed Development

At least two cross sections, orientated perpendicular to each other, must be provided

The location of cross sections must be shown on the plan view map(s). Cross sections must illustrate:

- The original land surface and, if applicable, the groundwater table elevation
- Typical configuration during mining, indicating angle of slope and, where applicable, bench locations
- Proposed configuration on completion of reclamation

stimate	the source of water supply:volume of water to be used:				(liters/sec)
	e the following table for existing and prop				,
ond#	Water Source (i.e. surface run off, wash plant, etc.)	Width (m)	Length (m)	Depth (m)	Construction Method (excavated, dyked, etc.)
/here th prov deso	om ponds will (check one): be re If discharged to the environment, a value is a discharge to the environment: vide a cross section illustrating the sediment control structure. cribe the type of sediment control structure.	Vaste Manage ent control st re(s):	gement Act ructure(s), de	cant structure	(s), and point of discharge to enviro
des	cribe area into which water is discharged	:			
or all se	cribe area into which water is discharged ettling ponds describe:				
or all se Spill	ettling ponds describe:				
or all se Spill Clea	ettling ponds describe: lway design:				

Mark the location of all proposed bla are located within 300 m of proposed				er well(s), or roadways
Shortest distance between blasting of	km			
Shortest distance between blasting of				
Are any public use areas (i.e. picnic/	. •	•	_	
□ No □ Ye	es - distance fron	n recreation area to blasti	ng operations is:	m
Will blasting be contracted out?	☐ No	☐ Yes		
Name of Blaster/Company:				
Blaster's Certificate #				
Blaster mu	ıst hold a valid l	BC Blasting Certificate a	as per Part 8.2.1 of the Code	
Will explosives be stored on site?	☐ No	☐ Yes		
If yes, has a B.C. Explosives Storage	e and Use Permi	t for Mining Purpose beer	n issued?	
·		• .	tions Regional Office and attach	
Yes - Provide cu	rrent permit #		Date of expiry (y/m/d):	
Provide details of (attach separate p	age(s) if space is	s insufficient):		
The state of the s		· ·		
type of explosives magazine: blasting procedure (public petific				
blasting procedure (public notili	cation, on-site sa	neguards, timing, etc.)		
-				
-				
If blasting is proposed within 1 kn information regarding fly rock cor			ıblic use area, the Inspector m	ay request further
illionilation regarding by rock col	ilioi aliu/oi seis	illic illipacis.		
The Inspector may request that a	Workers' Comp	ensation Board Blaster	s Log be kept	
Applicant Signatura			Date	
Applicant Signature:			Date	

SAMPLE MAP - Plan View and Cross-Section Please provide separate maps for plan view and cross-sections, on paper no smaller than 81/2" x 11." At least 2 cross sections orientated perpendicular to each other, are required. Forest Service Road Block B (Hay Field and Small private Area of proposed development growel prit) 1062 Block A Access Rood Gore Easement Note: All elevations from pit floor. Parcel A Scale : 1:1000 Plan 12306 (Arwate Land with Commercial Gravel Pit on site) C/L Cross Section 9.0m 7.5m 6.0m 4.5m 3.0m 1.5m 125m