



WASHINGTON STATE DEPT OF
**NATURAL
RESOURCES**

**COUNTY OR MUNICIPALITY
APPROVAL FOR
SURFACE MINING
(Form SM-6)**

NAME OF COMPANY OR INDIVIDUAL APPLICANT(S) <small>Same as name of the exploration permit holder. (Type or print in ink.)</small> Discovery Materials LLC		TOTAL ACREAGE AND DEPTH OF PERMIT AREA <small>(Include all acreage to be disturbed by mining, setbacks, and buffers, and associated activities during the life of the mine.) (See SM-8A.)</small> Total area permitted will be <u>22.03</u> acres Maximum vertical depth below pre-mining topographic grade is <u>165</u> feet Maximum depth of excavated mine floor is <u>63</u> feet relative to mean sea level				
MAILING ADDRESS P.O. Box 68697 Seattle, WA 98168-0697		COUNTY <u>Jefferson</u> No attachments will be accepted. Legal description of permit area:				
Telephone 253-872-7173		1/4	1/4	Section	Township	Range
		SW	13	29N	2W	
Proposed subsequent use of site upon completion of reclamation Rural Residential 1:20						
<div style="border: 1px solid black; padding: 10px; display: inline-block;"> <p style="color: blue; font-weight: bold; font-size: 1.2em;">RECEIVED</p> <p style="color: blue; font-weight: bold;">October 3, 2022</p> <p style="color: blue; font-weight: bold;">Washington Geological Survey</p> </div>						
Signature of company representative or individual applicant(s) 		Name and title of company representative (please print) Bob Scarsella, Vice President			Date signed 7/1/2022	
TO BE COMPLETED BY THE APPROPRIATE COUNTY OR MUNICIPALITY:						
Please answer the following questions 'yes' or 'no'.						Yes / No
1. Has the proposed surface mine been approved under local zoning and land-use regulations?						<input checked="" type="checkbox"/>
2. Is the proposed subsequent use of the land after reclamation consistent with the local land-use plan/designation?						<input checked="" type="checkbox"/>
When complete, return this form to the Department of Natural Resources.						
Name of planning director or administrative official (please print) Josh D. Peters			Address Jefferson County Community Development 671 Sheridan St Port Townsend, WA 98368			
Signature 						
Title (please print) Code Administrator						
Telephone 360-379-4450		Date 9/20/22		DNR Reclamation Permit No. 70-013289		
FOR DEPARTMENT USE ONLY:						



**APPLICATION FOR
RECLAMATION PERMIT AND PLAN
(Form SM-8A)**

Check appropriate box(es): new permit revision of existing permit transfer of permit expansion

NOTE: Do not attempt to complete this form until you have carefully read "Instructions for Form SM-8A".

1. NAME OF APPLICANT/PERMIT HOLDER(S) Discovery Materials LLC			
2. MAILING ADDRESS P.O. Box 68697 Seattle, WA 98168-0697			
3. Telephone 253-872-7173		Email bob@scarsellabros.com	
4. NAME OF MINE Discovery Bay			
5. Street address and milepost of surface mine 281240 Highway 101 Port Townsend, WA 1.6 miles North of Highway 101 and Highway 20 junction at Fairmont, WA on west side of road.			
6. Distance (miles) 1.6	7. Direction from NW	8. Nearest community Fairmont	
9. COUNTY Jefferson No attachments will be accepted. Legal Description of permit area:			
1/4	Section	Township	Range
SW	13	29N	2W
10. Do you or any person, partnership, or corporation associated with you now hold, or have you held, a surface mining operating or reclamation permit? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no If you answered yes to the above, please list: 12493, 13000, 12717, 13233, 11584, 12657, 10498, 10589			
11. Are all of these mines now in compliance with RCW 78.44, WAC 332-18, and conditions of the permits? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Have you ever had a surface mine operating or reclamation permit revoked? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no Have you ever had a reclamation security forfeited? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no If you answered yes to either of the above, give permit number(s):			

12. TOTAL ACREAGE OF PERMIT AREA APPLIED FOR: (Include all acreage to be permitted. See Form SM-6.) 22.03 acres	
13. Total disturbed acreage (Include all acreage to be disturbed by mining and reclamation during the life of the mine.) Total area to be disturbed: 20.03 acres. Area to be disturbed in next 36 months: 10 acres.	
14. Maximum vertical depth (thickness) mined below pre-mining topographic grade will be 165 feet.	
15. Lowest elevation of excavated mine will be 63 feet relative to mean sea level. Highest elevation of excavated mine will be 330 feet relative to mean sea level.	
16. Type of proposed or existing mine: <input checked="" type="checkbox"/> pit <input type="checkbox"/> quarry	
17. Material(s) to be mined: <input checked="" type="checkbox"/> sand and gravel <input type="checkbox"/> rock or stone <input type="checkbox"/> clay <input type="checkbox"/> metal <input type="checkbox"/> limestone <input type="checkbox"/> silica <input type="checkbox"/> other _____	
18. Deposit type: <input checked="" type="checkbox"/> glacial <input type="checkbox"/> river floodplain (alluvial) <input type="checkbox"/> river channel deposits <input type="checkbox"/> talus <input type="checkbox"/> bedrock <input type="checkbox"/> lode <input type="checkbox"/> other _____	
19. Expected start date of mining: 2022	20. Estimated number of years: 30
21. Total quantity to be mined over life of mine (estimated): 2,200,000 <input type="checkbox"/> tons or <input checked="" type="checkbox"/> cu yds	22. Estimated annual production: 73,000 <input type="checkbox"/> tons or <input checked="" type="checkbox"/> cu yds
23. Subsequent land use: <input type="checkbox"/> industrial <input type="checkbox"/> commercial <input checked="" type="checkbox"/> residential <input type="checkbox"/> agricultural <input type="checkbox"/> forestry <input type="checkbox"/> wetlands and lakes <input type="checkbox"/> other County or Municipality Approval for Surface Mining (Form SM-6) attached? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
24. Reclaimed elevation of floor of mine: Median 215' feet relative to mean sea level Reclaimed elevation is shown on cross sections? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
25. SEPA Checklist required? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
26. Application fee for a new reclamation permit is herewith attached? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	

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22. SEGMENTAL RECLAMATION		
Permit area has been divided into segments for mining and a mining schedule has been developed?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
If no, explain:		
Permit area has been divided into segments for reclamation and a reclamation schedule has been developed?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
If no, explain:		
23. SITE PREPARATION		
23A. Saving Topsoil, Subsoil, and Overburden for Reclamation		
Thickness of topsoil is <u>2.5</u> feet	Thickness of subsoil is <u>1.5</u> feet	Depth to bedrock is <u>Unknown</u> feet
Total volume of topsoil is <u>80,787</u> cubic yards	Total volume of subsoil is <u>48,472</u> cubic yards	
Volume of stored topsoil/subsoil is <u>65,000</u> cubic yards and will require <u>1.5</u> acres for storage. An estimated 34,000 yds is already being stored in the berm on the south property line. An additional 31,000 yds will be stored in the topsoil storage area shown on the map. Soil from future mining areas will be used to reclaim previously mined areas.		
Storage areas are shown on maps and will be marked on the ground with permanent boundary markers?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
Topsoil will be salvaged?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
If no, explain:		
Topsoil and overburden will be moved to reclaim an adjacent depleted segment?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
If no, explain:		
Before materials are moved, vegetation will be cleared and drainage planned for soil storage areas?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
If no, explain:		
Soil storage areas will be stabilized with vegetation to prevent erosion if materials will be stored for more than one season?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
If no, explain:		
23B. Permit and Disturbed Area Boundaries		
Boundary of the permit area will be marked on the ground with permanent boundary markers?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
Explain boundary markers: Staked Mining Limits Signs will be used as boundary markers.		
23C. Setbacks Screens and Buffers		
Are Screens required and are shown on maps?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
The reclamation setback for this site will be <u>50' on the South property line and 30' on the North, East and West property lines.</u>		
Is a permanent, undisturbed buffer planned for this site?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
If no, explain:		
Setbacks and buffers are shown on maps and have been marked on the ground with permanent boundary markers?	<input checked="" type="checkbox"/>	yes <input type="checkbox"/> no
If no, explain:		
23D. Buffers to Protect Streams and Flood Plains		
Will the site include a stream or flood plain?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
If yes, see "Additional Requirements for Mines in Flood Plains" in "Instructions for SM-8A".		
If no, skip to 23E.		
A stream buffer of at least 200 feet has been marked on the ground with permanent boundary markers?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
A buffer of at least 200 feet from the 100-year flood plain has been marked on the ground with permanent boundary markers?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
If no, explain: Not within flood plain.		
Copy of Shoreline Permit from local government or the Department of Ecology is attached?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Hydraulic Project Approval from the Department of Fish and Wildlife is attached?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no

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23E. Conservation Buffers	
Are there any conservation buffers?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If no, skip to 23F	
Conservation buffers will be established for the following purpose(s): <i>(Check all that apply)</i> <input type="checkbox"/> unstable slopes <input type="checkbox"/> wildlife habitat <input type="checkbox"/> water quality <input type="checkbox"/> other Describe the nature and configuration of the conservation buffer(s):	
Conservation buffers are shown on maps and have been marked on the ground with permanent boundary markers?	<input type="checkbox"/> yes <input type="checkbox"/> no
23F. Ground Water	
High water table depth is ___ feet <input type="checkbox"/> relative to mean sea level, <input type="checkbox"/> below original surface, or <input checked="" type="checkbox"/> unknown. Low water table depth is ___ feet <input type="checkbox"/> relative to mean sea level, <input type="checkbox"/> below original surface, or <input checked="" type="checkbox"/> unknown. Annual fluctuation of water table is from ___ feet on _____ to ___ feet on _____. Unknown see Revised Geotechnical Report for further information.	
Are well logs attached? See Aquifer Recharge Report	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
The shallowest aquifer is <input type="checkbox"/> confined <input checked="" type="checkbox"/> unconfined	
The site will be mined: <input type="checkbox"/> wet <input checked="" type="checkbox"/> dry <input type="checkbox"/> both Describe mining method: Dozer will push material down to the processing area. If needed excavator will be used in place of dozer to extract the sand and gravel. Loader will pick up material and place it in plant for processing or in truck to be taken off site.	
The site is in a: <input checked="" type="checkbox"/> critical aquifer recharge area <input type="checkbox"/> sole source aquifer <input type="checkbox"/> public water supply watershed <input type="checkbox"/> wellhead protection area <input type="checkbox"/> special protection area <input type="checkbox"/> designated aquifer protection area <i>If checked above, see "Additional Requirements for Mines in Hydrologically Sensitive Areas" in "Instructions for SM-8A".</i>	
Ground water study attached? See Aquifer Recharge Report	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
23G. Archeology	
Are archeological/cultural resource sites present?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
If yes, describe how you will protect these resources:	
24. MINING PRACTICES TO FACILITATE RECLAMATION	
24A. Soil Replacement	
Topsoil and (or) subsoil will be restored?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If "no", explain:	
Subsoil will be replaced to an approximate depth of 1.5 feet on the pit floor and a depth of 1.5 feet on slopes. Topsoil will be replaced to an approximate depth of 1.5 feet on the pit floor and a depth of 1.5 feet on slopes.	
If topsoil is in short supply, it will be strategically placed in depressions and low areas in adequate thickness to conserve moisture and promote revegetation?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
Topsoil will be moved when conditions are not overly wet or dry?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
Topsoil will be restored to promote effective revegetation and to stabilize slopes and mine floor?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If "no", explain:	
Topsoil will be replaced with equipment that will minimize compaction, or it will be plowed, disked, or ripped following placement?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	

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Topsoil will be immediately stabilized with grasses and legumes to prevent loss by erosion, slumping, or crusting? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Segmental topsoil removal and replacement is shown on maps? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Topsoil will be imported? If yes, describe source. Backfill material will be imported and could include topsoil. Estimated volume is <u>184,000</u> cubic yards.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Synthetic topsoil made from compost, biosolids, or other amendments will be used and (or) made on site to supplement existing topsoil?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Materials such as till, loess, and (or) silt are available on site that could be used to supplement topsoil for reclamation. If yes, explain: There is glacial till on site that could be used to supplement topsoil if needed.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Silt from settling ponds or a filter press will be used for reclamation? If fines are produced in a settling pond, these fines could be used in reclamation.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Settling pond clay slurries will be pumped or hauled to other segments for reclamation? If yes, explain: Same as settling pond fines.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
24B. Removal of Vegetation	
Vegetation will be removed sequentially from areas to be mined to prevent unnecessary erosion? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Small trees and other transplantable vegetation will be salvaged for use in revegetating other segments? If yes, give details. If no, explain: Native vegetation that is in the reclamation plan will be imported once needed for reclamation.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Wood and other organic debris will be: <input type="checkbox"/> recycled <input checked="" type="checkbox"/> removed from site <input checked="" type="checkbox"/> chipped <input type="checkbox"/> burned <input type="checkbox"/> buried <input checked="" type="checkbox"/> used to synthesize topsoil or mulch <input type="checkbox"/> other (<i>explain</i>) Will log marketable timber. Then clear and grub remaining vegetation. Chip removed vegetation. Use chippings on site for synthesizing topsoil or sell/ use on job sites for erosion control/ synthesis with topsoil. Solid waste disposal, burning, and land use permits are attached?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Some coarse wood (logs, stumps) and other large debris will be salvaged for fish and wildlife habitats? If yes, give details. If no, explain: Native vegetation will be brought in once needed for reclamation.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
24C. Stormwater and Erosion control for Reclamation	
Pit floor will slope at gentle angles toward highwall, sediment retention pond, or proper drainage? If yes, give details. If no, explain: Pit floors will slope towards infiltration pond in South East corner of mine.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Revegetation, sheeting, and (or) matting will be used to protect areas susceptible to erosion? If yes, give details. If no, explain: Soil placement then seeding will commence as soon as material has been extracted from each phase.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Water control systems used during segmental reclamation will:	
Divert clean water around pit?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Trap sediment-laden runoff before it enters a stream?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Be established to prevent erosion of setbacks and neighboring properties?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Be removed or reclaimed?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If any answers are no, explain:	

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Stormwater system design will be capable of carrying the peak flow of the 25-year, 24-hour precipitation event? <i>(Data are available at the National Oceanic And Atmospheric Administration (NOAA))</i>	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If yes, are calculations attached?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If yes, give details. If no, explain: Stormwater calculations were completed. The pond sizing will match recommendations based on those calculations.	
Natural and other drainage channels will be kept free of equipment, wastes, stockpiles, and overburden?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
25. RECLAMATION TOPOGRAPHY	
25A. Final Slopes	
Final slopes will be created using the cut-and-fill method?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Explain procedure to be used: Each phase will be mined out to mined out grade and then subsequently backfilled to final grade.	
Slopes will be created by mining to the final slope using the cut method?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Explain procedure to be used:	
Slopes will vary in steepness?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
Slopes will have a sinuous appearance in both profile and plan view?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
Large rectilinear (that is, right angle, or straight, planar) areas will be eliminated?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
Where reasonable, tracks of the final equipment pass will be preserved and oriented to trap moisture, soil, and seeds, and to inhibit erosion?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain:	
25B. Slope Requirements for Pits and Overburden/Waste Rock Dumps (non-saleable products)	
<i>If the mine is a quarry or in hard rock, skip to Quarry section (25C).</i>	
Slopes will vary between 2 and 3 feet horizontal to 1 foot vertical or flatter, except in limited areas where steeper slopes are necessary to create sinuous topography and control drainage?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If no, explain: The slopes will be a maximum of 2:1.	
For pits, slopes will not exceed 2 feet horizontal to 1 foot vertical except as necessary to blend with adjacent natural slopes?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Give details: Slopes will be based on the Revised Geotech Report.	
<i>Review "Additional Requirements for Mines with Steep or Potentially Unstable Slopes" in "Instructions for SM-8A".</i>	
Slope stability analysis required?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If yes, attach analysis.	
25C. Slope Requirements for Quarries and Hardrock Metal Mines	
<i>If mine is a pit in unconsolidated materials covered by Section 25B, go to Section 25D</i>	
Check the appropriate box(es)	
<input type="checkbox"/> Slopes will not exceed 2 feet horizontal to 1 foot vertical.	
<input type="checkbox"/> Slopes steeper than 1 foot horizontal to 1 foot vertical are an acceptable subsequent land use as confirmed on Form SM-6.	
<input type="checkbox"/> Hazardous slopes or cliffs are indigenous to the immediate area and already present a potential threat to human life. Photo and maps attached to document presence of cliffs.	
<input type="checkbox"/> Geologic or topographic characteristics of the site preclude slopes being reclaimed at a flatter angle and are an acceptable subsequent land use as confirmed on Form SM-6.	
<i>Review "Additional Requirements for Mines with Steep or Potentially Unstable Slopes" in "Instructions for SM-8A".</i>	

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Slope stability analysis required? If yes, attach analysis.	<input type="checkbox"/> yes <input type="checkbox"/> no
Measures will be taken to limit access to the top and bottom of hazardous slopes? Describe measures, or if no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Selective blasting will be used to remove benches and walls and to create chutes, buttresses, spurs, scree slopes, and rough cliff faces that appear natural? Blasting plan attached? If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no
Reclamation blasting will be used to reduce the entire highwall to a scree or rubble slope less than 2 feet horizontal to 1 foot vertical? Blasting plan is attached? If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no
Access to benches will be maintained for reclamation blasting? If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Small portions of benches will be left to provide habitat for raptors and other cliff-dwelling birds?	<input type="checkbox"/> yes <input type="checkbox"/> no
25D. Backfilling	
The site will require backfilling? If no, skip to 25E. Maximum depth of backfilling is <u>111</u> feet.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Backfill will be <input type="checkbox"/> onsite materials <input type="checkbox"/> imported materials <input checked="" type="checkbox"/> both Provide a written screening method that ensures importation of acceptable soil for reclamation. See Clean Soil Policy attached.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Backfilling plan is attached? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Backfill stockpiles are shown on maps and will be marked on the ground with markers?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
All grading/backfilling will be done with non-noxious, non-combustible, and relatively incompactible solids? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Backfill will require compaction? If no, explain:	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Will you be backfilling to create slopes? Is slope stability analysis attached? If no, explain.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> yes <input type="checkbox"/> no
25E. Mine Floors	
Flat areas will be formed into gently rolling mounds? If yes, give details. If no, explain: There will be two flat pads that will be used for future development.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Mine floor will be gently graded into sinuous drainage channels to preclude sheetwash erosion during intense precipitation? If yes, give details. If no, explain: Mine floor will be gently graded with heavy equipment into drainage channels that will be managed with BMP's to direct water to the onsite pond and keep the site from eroding.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Mine floor and other compacted areas will be bulldozed, plowed, ripped, or blasted to foster revegetation? If yes, give details. If no, explain: Mine floor will be properly prepared according to the Reclamation Plan to facilitate revegetation.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
25F. Lakes, Ponds, and Wetlands	
Is water currently present in the area or will the mining penetrate the water table? If no, go to Section 25G.	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no

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Reclaimed areas below the permanent low water table in soil, sand, gravel, and other unconsolidated material will have a slope no steeper than 1.5 feet horizontal to 1 foot vertical? If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
If not already present, soils, silts, and clay-bearing material will be placed below water level to enhance revegetation? If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Some parts of pond and lake banks will be shaped so that a person can escape from the water?	<input type="checkbox"/> yes <input type="checkbox"/> no
Armored spillways or other measures to prevent undesirable overflow or seepage will be provided to stabilize bodies of water and adjacent slopes? If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Wildlife habitat will be developed, incorporating such measures as: Sinuous and irregular shorelines? Varied water depths? Shallow areas less than 18 inches deep? Islands and peninsulas? Give details:	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no
Ponds or basins will: Be located in stable areas? Have sufficient volume for expected runoff? Have an emergency overflow spillway? Spillways and outfalls will be protected (for example, rock armor) to prevent failure and erosion? If any answers are no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no
Proper measures will be taken to prevent seepage from water impoundments that could cause flooding outside the permitted area or adversely affect the stability of impoundment dams or adjacent slopes? If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Written approval from other agencies with jurisdiction to regulate impoundment of water is attached? If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
25G. Final Drainage Configuration	
Drainages will be constructed on each reclaimed segment to control surface water, erosion, and siltation? Result in essentially natural conditions of volume, velocity, and turbidity? Clean runoff is directed to a safe outlet? If yes, give details. If no, explain: Runoff will be directed to the siltation and infiltration pond. No runoff off the property is planned.	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Are these shown on maps?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
26. SITE CLEANUP AND PREPARATION FOR REVEGETATION	
26A. Dealing with Hazardous Materials	
Hazardous materials are present at the mine site? <i>If no, go to Section 26B</i>	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
The final ground surface drains away from any hazardous natural materials? If yes, give details. If no, explain:	<input type="checkbox"/> yes <input type="checkbox"/> no
Plan for handling hazardous mineral wastes indigenous to the site is attached? If no, written approval from all appropriate solid waste regulatory agencies attached?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no

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26B. Removal of Debris	
All debris (garbage, 'bone piles', treated wood, old mining equipment, etc.) will be removed from the mine site?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
All sheds, scale houses, and other structures will be removed from the site?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If either answer is yes, give details. Plant equipment, yellow iron, job trailers or other structures will be removed. Garbage won't be permitted to accumulate on site. Anything not necessary to a post mining use will be removed from the site.	
27. REVEGETATION	
The mine site is in: <input type="checkbox"/> eastern Washington <input checked="" type="checkbox"/> western Washington	Revegetation area is: <input type="checkbox"/> wet <input checked="" type="checkbox"/> dry <input type="checkbox"/> both
The average precipitation is 20-55 inches per year.	
Revegetation will start during the first proper growing season (fall for grasses and legumes, fall or late winter for trees and shrubs) following restoration of mine segments?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If yes, give details. Revegetation will begin with grasses/ clover followed by red alder and douglas fir.	
The site will not be revegetated because:	
<input type="checkbox"/> It is a rural area with a rainfall exceeding 30 inches annually and erosion will not be a problem (requires approval of DNR).	
<input type="checkbox"/> Revegetation is inappropriate for the approved subsequent use of this surface mine.	
Explain:	
27A. Recommended Pioneer Species	
In the Sections below, check the species that will be planted at your mine site: <i>* indicates nitrogen-fixing species</i>	
Western Washington Dry Areas	
<input type="checkbox"/> alfalfa*	<input type="checkbox"/> lupine* <input checked="" type="checkbox"/> clover* <input type="checkbox"/> orchard grass
<input type="checkbox"/> cereal rye	<input checked="" type="checkbox"/> perennial rye <input type="checkbox"/> colonial bent grass <input type="checkbox"/> ponderosa pine
<input type="checkbox"/> creeping red fescue	<input checked="" type="checkbox"/> red alder* <input checked="" type="checkbox"/> Douglas fir <input type="checkbox"/> shore pine
<input type="checkbox"/> ground cover	<input type="checkbox"/> shrubs <input type="checkbox"/> other
Western Washington Wet Areas	
<input type="checkbox"/> birdsfoot trefoil	<input type="checkbox"/> sedges <input type="checkbox"/> cedar <input type="checkbox"/> tubers
<input type="checkbox"/> cottonwood	<input type="checkbox"/> wetland grasses <input type="checkbox"/> creeping red fescue <input type="checkbox"/> willow
<input type="checkbox"/> red alder*	<input type="checkbox"/> other
Eastern Washington Dry Areas	
<input type="checkbox"/> alder*	<input type="checkbox"/> grasses <input type="checkbox"/> alfalfa* <input type="checkbox"/> juniper
<input type="checkbox"/> black locust	<input type="checkbox"/> lodgepole pine <input type="checkbox"/> clover <input type="checkbox"/> lupine*
<input type="checkbox"/> deciduous trees	<input type="checkbox"/> ponderosa pine <input type="checkbox"/> shrubs <input type="checkbox"/> deep-rooted ground cover
<input type="checkbox"/> diverse evergreens	<input type="checkbox"/> other
Eastern Washington Wet Areas	
<input type="checkbox"/> alder*	<input type="checkbox"/> cottonwood <input type="checkbox"/> poplar <input type="checkbox"/> sedges
<input type="checkbox"/> serviceberry	<input type="checkbox"/> tubers <input type="checkbox"/> willow
<input type="checkbox"/> other	
Give planting details (stems/acres of trees and shrubs, see Forest Practices manual ; lbs/acre of grass, legume, or forb mixture): 190 well-distributed seedlings per acre will be planted. 100 well distributed merchantable trees, saplings or advanced reproductions per acre will be planted. 2 to 4 lbs/acre of grass, legume, or forb mixtures will be used. Amounts used will be based on type of mixture.	
Describe weed control plan: Weeds will be monitored during the reclamation process and will be sprayed or mechanically removed to control.	

APPLICATION FOR RECLAMATION PERMIT AND PLAN

27B. Planting Techniques	
Revegetation at this site will require:	
Ripping and tilling?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Blasting to create permeability?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Mulching?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Irrigation?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Fertilization?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Importation of clay- or humus-bearing soils?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Other soil conditioners or amendments?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Give details: Soil will be placed on finish grade. Tilling or roughening of the finish grade prior to soil placement will be done to discourage erosion and improve revegetation. Where left over chipped organics are available, they will be blended into the topsoil.	
Trees and shrubs will be planted in topsoil or in subsoil amended with generous amounts of organic matter?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If yes, give details. If no, explain: Mulch will be used to help retain moisture, prevent erosion, and moderate soil temperature fluctuations.	
Mulch will be piled around the base of trees and shrubs?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
High quality stock will be used?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Trees and shrubs will be planted while they are dormant?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Stock will be properly handled, kept cool and moist, and planted as soon as possible?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Seeds will be covered with topsoil or mulch no deeper than one-half inch?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If any answers are no, explain:	
28. FINAL CHECKLIST	
All required maps are attached? (<i>See "Instructions for SM-8A" for detailed requirements.</i>)	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
All required cross sections are attached? (<i>See "Instructions for SM-8A" for detailed requirements.</i>)	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Geologic map attached (if required)? (<i>See "Instructions for SM-8A" for detailed requirements.</i>)	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
All documents submitted have the date, the name and address of the permit holder, and the application number?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Have you completed the SM-6 and has it been signed by the local jurisdiction?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Have you provided the SEPA checklist?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Have you provided a copy of the SEPA determination (DNS, MDNS, or DS)?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
Have you attached photographs (as needed)?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Are additional supplemental studies included?	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no
If yes, check the appropriate box(es) below:	
<input type="checkbox"/> Archeological	<input checked="" type="checkbox"/> Geohydrologic
<input type="checkbox"/> Topsoil	<input type="checkbox"/> Flood plain
<input type="checkbox"/> Other	<input checked="" type="checkbox"/> Backfill
	<input type="checkbox"/> Conservational
	<input checked="" type="checkbox"/> Slope stability
	<input type="checkbox"/> Vegetation
Other permits required? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	
If yes, check the appropriate box(es) below:	
<input type="checkbox"/> Shoreline Permit	<input type="checkbox"/> Water Discharge Permit
<input type="checkbox"/> Air Quality Permit	<input checked="" type="checkbox"/> NPDS or General Discharge Permit
<input checked="" type="checkbox"/> Special or Conditional Use Permit	<input type="checkbox"/> Solid Waste Permit
<input type="checkbox"/> Other	<input type="checkbox"/> Hydraulic Project Approval

APPLICATION FOR RECLAMATION PERMIT AND PLAN

IDENTIFICATION OF LANDOWNER(S)

Identify names and addresses of all landowners. Provide written evidence of landowner approval of the extraction of minerals by surface mining methods and of the reclamation plan and/or provide the signature of all landowners below. If landownership has been severed between surface and mineral rights ownership, identify all affected mineral rights owner(s) and provide their approval. *(Attach signed copies of this page if more than one.)*

Print Name(s): Discovery Materials LLC


Address(es): P.O. Box 68697 Seattle, WA 98168-0697

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October 3, 2022
Washington Geological Survey

APPLICANT ACKNOWLEDGMENT

By signing this application, the applicant acknowledges the following:

- **Application's Information True.** The applicant verifies that all information on this application and reclamation plan is true.
- **Reclamation Plan Contents.** The applicant's reclamation plan consists of this document (SM-8A), SM-6, associated maps, cross sections, reclamation narrative, and other attachments. The department's approval of this application would reflect approval of the applicant's reclamation plan.
- **Applicant/Permit Holder Must Comply.** If the department approves this application, the applicant shall be the permit holder and shall be responsible for compliance with Chapter 78.44 RCW, Chapter 332-18 WAC, the terms and conditions of the permit, and the approved reclamation plan and attachments. ***The permit holder shall comply with the permit and may not significantly deviate from the reclamation plan without prior written approval by the department for the proposed change.*** Revised permits or modified plans might be necessary following significant deviations.
- **Applicant/Permit Holder Consents to Inspection.** All permitted surface mines are subject to regular inspection. See RCW 78.44.161 and WAC 332-18-050. The applicant verifies that it has authority to consent to department inspections on behalf of itself and the landowner(s). ***Applicant authorizes the department to enter and inspect any property covered by this application during any day or time determined necessary by the department to ensure compliance with the Surface Mining Act, Surface Mining Rules, the Reclamation Permit, and the Reclamation Plan.***

APPLICANT Signature of surface mine permit applicant or applicant's company representative 	Name and Title of Company Representative (Please print) Logan Davidson Materials Division Manager	Date signed 8/17/2022
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LANDOWNER(S)	
As landowner, I  (name) authorize the applicant to extract minerals from my land using surface mining methods and I approve this reclamation plan.	Signature:  Date signed: 

FOR DEPARTMENTAL USE ONLY			
Date accepted	Accepted by:	Title:	Reclamation Permit No.

Reclamation Plan Narrative

Mine Name: Discovery Bay

Owner: Discovery Materials LLC

Operator: Scarsella Bros., Inc.

Simple Legal Description: The SW $\frac{1}{4}$ of Section 13, Township 29 North, Range 2 West, Willamette Meridian, Jefferson County, Washington

7/2022

The property is currently zoned Rural Residential 1 Unit/20 Acres. Allowed land uses are few and light in intensity. One home may be built on the property in the future. Additionally, forestry activities may occur on the property.

The property will be mined to a maximum depth of 165 feet below pre-mining topographic grade. The material being mined is sand and gravel. Excavators, dozers or loaders will be used to extract the material from the ground. The material will then be conveyed via truck, conveyor or loader to the processing area for processing or loading onto trucks.

After mining, the property will be backfilled. Please see the backfill plan for details on how the mine will be backfilled. This document includes a description (or references the Revised Geotechnical Report by Georesources) of the clean soil policy and compaction and slope recommendations.

The property has mining setbacks of 50' on the southern property line and 30' on the north, east and west. An existing 15-20' tall, vegetated berm lies within the 50' setback. It will be maintained to decrease visibility and noise impacts to others.

A stormwater pond has been sized by an engineer and will be built to ensure stormwater infiltrates into the ground and no stormwater runs off site. Slopes and ditches will be graded to direct stormwater to the pond. A site management plan has been prepared to meet the Department of Ecology requirements for stormwater management.

Mining will occur sequentially with no more than 10 acres disturbed at a time. The southernmost 10 acres will be mined first. Topsoil will be stockpiled along the inside edge of the mining setback and in previously mined areas. Vegetation will be stripped and grinded up for use in the topsoil. Once this first area is mined out it will be backfilled up to between 100'-135' msl. Besides, the stormwater pond, roads and temporary processing areas, the area will be hydroseeded to meet the County's requirement of having no more than 10 acres disturbed at a time. The northern half of the property will be mined next following a similar pattern. First, vegetation will be cleared. Second, topsoil stripped. Third, sand and gravel will be mined. Fourth, backfilled. Fifth, topsoil will be placed over the whole mine. Last the whole mine will be revegetated.

The southern portion of the mine is within a critical aquifer recharge area. A report has been prepared to prescribe best management practices to avoid impacting the aquifer. See the report for a detailed

description of the geology, hydrogeology, and prescription of best management practices. No significant groundwater is expected to be within the excavation area. Best management practices will be implemented to ensure no impact to groundwater.

Backfilling Plan

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Mine Name: Discovery Bay

Owner: Discovery Materials LLC

Operator: Scarsella Bros., Inc.

7/2022

The Discovery Bay Mine will be backfilled with about 1.9 million cubic yards of soil. Backfilling will follow a clean soil policy, and compaction and slope recommendations from the Geotech (See the Revised Geotechnical Report by Georesources).

Clean Soil Policy

The mine will be backfilled with clean soil as defined in Scarsella Bros., clean soil policy. The clean soil policy is attached. Soil will be screened prior to it being brought to the pit. See the clean soil policy for the questionnaire that will help customers (or Scarsella Bros., Inc.) determine if they can bring their material into the pit. This questionnaire will also determine if Scarsella Bros., Inc. needs to require testing of the material the customer has. Material coming from a site where there may have been a release (release of contaminants on said property of more than a de minimis amount) will require testing. Any material that is known to not meet the clean soil definition in the clean soil policy will be turned away.

In addition to using soils from off site, reject materials from processing and excess topsoil or subsoil may be used in reclamation.

Compaction

The zoning on the property currently is Rural Residential 1 Unit/20 Acres. One house may be built on the property at some point in the future. Future permissible land uses in this location are expected to be limited and of a low intensity.

See the Revised Geotechnical Report by Georesources for compaction recommendations and monitoring.

Backfilled Slopes

All temporary and permanent slopes will meet the criteria as outlined in the revised Geotechnical Report. Backfilling will restore the site to a similar state before mining occurred and build a couple of flat areas for future development.