



SURFACE MINE RECLAMATION PLAN APPLICATION

FILING FEE: \$900 + \$150/ac over 5 ac total disturbed area to \$1,800 max.
With Use Permit: \$1,200 + \$200/ac over 5 ac total disturbed area to \$2,400 max.

DEPARTMENT OF PLANNING AND BUILDING SERVICES

707 Nevada Street, Suite 5 • Susanville, CA 96130-3912

(530) 251-8269 • (530) 251-8373 (fax)

www.co.lassen.ca.us




RECEIVED

FEB 03 2022

Form must be typed or printed clearly in black or blue ink. All sections must be completed in full.

This application consists of one page; only attach additional sheets if necessary.

FILE NO. LASSEN COUNTY DEPARTMENT OF
PLANNING AND BUILDING SERVICES

1) Property Owner/s Mineral Claims	Property Owner/s Surface Estate
Name: Geofortis Minerals LLC	Name: Avalanche Funding
Mailing Address: 30 S. Tooele Blvd.	Mailing Address: 5040 Acoma Street
City, ST, Zip: Tooele, UT 84074	City, ST, Zip: Denver, CO 80216
Telephone: 925-348-3535 Fax:	Telephone: Fax:
Email: dmcmurtry@geofortis.com	Email: fred@5040group.com
SIGNATURE OF PROPERTY OWNER(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application.  Date: 1/11/22	SIGNATURE OF PROPERTY OWNER(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application. Date:
2) Owner of Mineral Rights (if different than property owner, The record owner of mineral rights must sign below) Same as Property Owner: <input checked="" type="checkbox"/>	3) Mine Operator Same as Applicant: <input checked="" type="checkbox"/> Correspondence also sent to: <input type="checkbox"/>
Name: Geofortis Minerals, LLC	Name:
Mailing Address: 30 S. Tooele Blvd.	Mailing Address:
City, ST, Zip: Tooele, UT 84074	City, ST, Zip:
Telephone: 925-348-3535 Fax:	Telephone: Fax:
Email: dmcmurtry@geofortis.com	Email:
SIGNATURE OF MINERAL RIGHTS OWNER(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application.  Date: 1/11/22	MINE OPERATOR(S): I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application. Date:
4) Applicant/Authorized Representative* Same as Property Owner: <input checked="" type="checkbox"/>	Agent (Land Surveyor/Engineer/Consultant) None: <input type="checkbox"/> Correspondence also sent to: <input type="checkbox"/>
Name: David McMurtry, Geofortis Minerals, LLC	Name:
Mailing Address: 30 S. Tooele Blvd.	Mailing Address:
City, ST, Zip: Tooele, UT 84074	City, ST, Zip:
Telephone: 925-348-3535 Fax:	Telephone: Fax:
Email: dmcmurtry@geofortis.com	Email: License #:
*SIGNATURE OF APPLICANT/AUTHORIZED REPRESENTATIVE (Representative may sign application on behalf of the property owner only if Letter of Authorization from the owner/s is provided). I HEREBY ACKNOWLEDGE THAT: I have read this application and state that the information given is both true and correct to the best of my knowledge. I agree to comply with all County ordinances and State laws concerning this application.  Date: 1/11/22	This application consists of 9 pages. Both the Applicant and Property Owner (unless the same) shall initial at the bottom of pages 2 through 7 where indicated.

5) Assessor's Parcel Number(s):	145- 030 -016	145- 050 -004	145 - 050 -012
145-030-017	- -	- -	- -

6) Project address or specific location:

Deed Reference: Book:

Page:

Year:

Doc#:

Zoning: Agriculture A-1 (General Agriculture)

General Plan Designation: Extensive Agriculture

Parcel Size (acreage):

Section: 11 & 14 Township: 23N Range: 17E

7) Present use of the site: Vacant

8) Present use of land surrounding the site: Vacant

9) Distance and direction to nearest residence (identify the owner and provide the Assessor's Parcel Number):

2.6 miles south, on Hwy 395, APN 145 - 01 (Section 26 SE 1/4 of SE 1/4 of T23N R17E

APN 145-070-002-000
Dellis Bone

MINE OPERATION INFORMATION

10) Proposed name of mine: Geofortis Pozzolan Mine

11) Proposed starting date (or date current operation began): 2022

12) Proposed termination date: 2070

13) List the mineral commodity(ies) to be mined: Lassenite™ pozzolan

14) Maximum quantity of mineral commodity to be mined (in terms of production as defined by the State Mining and Geology Board):

Annually 500,000 cu. yds. / _____ tons Project Total cu. yds. / 8,610,000 tons

Describe the maximum slopes and erosion controls for stockpiled mined material: 2:1 slopes

During mining and reclamation a SWPPP plan will be implemented to control runoff and minimize erosion. The mining plan attached details BMP required.

15) Approximate quantity of overburden to be removed (not including top soil):

Annually minimal cu. yds. Project Total _____ cu. yds.

Describe the use, maximum slopes and erosion controls for stockpiled overburden:

Limited stockpiles will be interim seeded with a BLM approved seed mix. Appropriate BMPs such as hay bales, silt fences will be installed around the stockpiles, if necessary, to prevent surface runoff and runoff. Topsoil stockpiles will be identified and segregated on the ground.

16) When and how will top soil be salvaged and how will it be stored and identified?

Very little topsoil because mineral is exposed at the surface in most areas. Appropriate BMPs such as hay bales, silt fences will be installed around the stockpiles, if necessary, to prevent surface runoff and runoff. Topsoil stockpiles will be identified and segregated on the ground.

DM

17) Approximate quantity of top soil (top surface layering in which plants are growing) to be removed:

Annually minimal cu. yds. Project Total _____ cu. yds.

Describe the use, maximum slopes and erosion controls for stockpiled top soil: 2:1 slopes

Very little topsoil because mineral is exposed at the surface in most areas. Appropriate BMPs such as hay bales, silt fences will be installed around the stockpiles, if necessary, to prevent surface runoff and runoff. Topsoil stockpiles will be identified and segregated on the ground.

18) Will supplemental material be imported to the site during mining (such as aggregates, cement, asphalt oil, production or dust control water, etc.)?

☒ NO

____ YES. Please describe the type and quantity of material(s) to be imported: _____

19) Explain the mining methods proposed (for example "open pit excavation resulting in a subgrade pit"; or "excavation of a hillside resulting in side and back highwalls with an open floor"; stream dredge, etc.): _____

Excavation of a hillside and open pit excavation resulting in a subgrade pit with sloped highwalls. See Mine Plan attached.

20) Describe the maximum depth of mine pit (for subgrade pit) in relation to a verifiable benchmark or height of walls (for hillside excavation) and maximum pit wall slopes:

Depth of Pit (or height of walls) 145 feet Benchmark _____ Max Slope 1.5:1 (horizontal / vertical)

Will pit slopes (walls) be benched? Explain: slopes 1.5:1 with benches every 15 feet

21) a) Check all on-site processing proposed:

☒ Excavation

_____ Blasting

☒ Loading

☒ Crushing

_____ Screening

_____ Washing

_____ Concrete Production

_____ Asphalt Production

_____ On-site Fuel Storage

☒ Stockpiling

_____ On-site Equipment Maintenance, Storage and/or Fueling

_____ Other (explain): _____

b) List all equipment to be used on site: _____

Equipment to be used on site includes: Loader(s), Skid Steer, Haul Trucks, Dozer, Excavator, Water Truck / Pull for Dust Control, Service equipment as necessary (crane, service / fuel / lube truck, pick-ups & employee vehicles), Traditional crushing and screening equipment for production of aggregates, Crushing and Screening Plant, Conveyors & Stacking Conveyors, Dozer Trap Feeder.

22) Mined material will be used for: Supplementary Cementitious Material in Concrete

23) Indicate how much surface area (in acres) will be used for the following activities:

Extraction:	Currently <u>0</u>	Annually <u>5</u>	Total <u>86</u>
Processing:	Currently <u>0</u>	Annually <u>2</u>	Total <u>2</u>
Stockpiles:	Currently <u>0</u>	Annually <u>2</u>	Total <u>2</u>
Haul Roads:	Currently <u>0</u>	Annually <u>1</u>	Total <u>1</u>
Equipment Storage:	Currently <u>0</u>	Annually <u>1</u>	Total <u>1</u>
Offices(s):	Currently <u>0</u>	Annually <u>0</u>	Total <u>0</u>
Scale(s):	Currently <u>0</u>	Annually <u><1</u>	Total <u><1</u>

Other (explain): _____

 Total project area to be used: Currently 0 acres Total 86 acres

24) Will any settling ponds be constructed? No

25) Describe any temporary stream and watershed diversions and their construction: _____

See Section 3.4 of the Mining Plan. No stream diversions for stormwater control.

26) Describe the mining time schedule and how it provides for completion of mining on each segment so that reclamation can be concurrent or phased: Mining will be in phases and reclamation progressing during mining.

27) How much area will be disturbed before reclamation begins?

35 acres

28) How will any potential public health and safety concerns that may arise due to exposure of the public to the site be addressed?

See Mining Plan Section 2.2.13.

29) Describe the geology of the site and vicinity (for geologic maps contact the Department of Conservation Division of Mines and Geology, Geologic Information and Publications Office, 801 K Street, MS 14-33, Sacramento, CA 95814-3532, (916) 445-5716) (attach pages as needed): See Mining Plan Section 2.2.4.

30) Describe the following characteristics of the project site (if the site has already been disturbed, you may describe adjoining lands similar to the mine site. Attach additional pages as needed):

- a) **Vegetation:** Include an inventory of plants found on or near the site. It is strongly suggested that the applicant work with a qualified biologist/botanist in developing the vegetation inventory and the revegetation plan (attach pages as needed):

Plant Type (common name OK)	Density (% cover for grasses)	Location / Aspect
See Mining Plan Section 2.2.13		
See BEC Biological Survey Report, May 2020		

- b) **Wildlife in and around the site:** See Mining Plan Section 3.5 and BEC Biological Survey Report, May 2020

- c) **Known rare, endangered and threatened species of plants and animals occurring on or near the site (contact the Department of Fish and Wildlife, Redding Office at (530) 225-2360, or Wendel Office at (530) 254-6808) (show location on site map):** See Mining Plan Section 3.5 and 3.6 and BEC Biological Survey Report, May 2020

- d) **Wetlands, wet areas and surface drainage system(s), including intermittent drainages (include on site map):** No Wetlands are present. Drainage is shown on maps in Mining Plan Section 2.2.6

- e) **Include copies of any reports, surveys, or other documents related to the characteristics of the site, used in your description.**

31) **How will any sensitive species, wildlife habitat, or wetlands be protected or mitigated?** See Mining Plan Section 3.0 and Section 2.2.13

32) **Describe the proposed use of the mine site after mining has ended and reclamation is complete:** Open space/wildlife habitat.

33) **Describe how reclamation of the mine site will affect future mining in the area (consider whether the proposed reclamation plan will allow or preclude future mining on site or in the area. For example, will this operation deplete on-site mineral reserves? Will the proposed end use prevent future mining by construction of houses, other buildings, reservoirs, etc.):** Reclamation will not affect future mining of this site or area.

34) **Describe any impacts of reclamation on surrounding land uses:** No high walls will be left and slopes will be stable. No negative impacts.

ATTACH THE FOLLOWING TO THE APPLICATION

35) ATTACH SEPARATE PAGES DESCRIBING HOW THE MINED LANDS WILL BE RECLAIMED. ADDRESS AT LEAST THE FOLLOWING ACTIVITIES (using corresponding numbers), TAKING INTO CONSIDERATION THE RECLAMATION STANDARDS SET FORTH IN THE STATE MINING AND GEOLOGY BOARD RECLAMATION REGULATIONS (California Code of Regulations (CCR) Section 3700 – 3713, available from the Lassen County Planning and Building Department):

A. EARTH WORK

1. How will the pit walls, waste dumps, tailings, haul roads, etc. be regraded and reshaped?
2. What will be the source and disposition of fill materials used for back filling or grading?
3. How will slopes be stabilized?
4. What is the proposed final grade of pit slopes, highwalls, waste piles, etc.?

B. SEEDBED PREPARATION AND REVEGETATION

1. The California Code of Regulations Section 3705(b) requires that test plots be established while the mining operation active, in order to determine the best revegetation species and methods for the site. Describe the location of and methods to be used in test plots.
2. Will top soil be reapplied during reclamation? When? Where? To what depth? Please explain. (Sample: "The top 10 inches, estimated at 10,000 cubic yards, will be scraped, stored and reapplied to regraded slopes and pit floor to a depth of 6 inches" or "crusher fines with organic material added will be redistributed to a depth of 12 inches" or "10,000 c.y. of top soil will be imported (indicate source of imported material) and distributed to a depth of 6 inches.")
3. Describe how soil conditioners, mulches, imported topsoil will be used (include plan for soil analysis if required).
4. How will compacted soils (in processing areas, roads, pit floor, benches, etc.) be decompacted in preparation for planting? (Sample: "All compacted surfaces will be ripped to a depth of 12 inches prior to application of top soil")
5. What plant species will be planted on slopes; pit floor; haul roads; etc.?
6. How many pounds of seed (for each species) will be planted per acre; how many seedlings per acre; etc.?
7. What method(s) will be used for planting (e.g broadcast, drill seeding)? What time of year will planting take place?
8. How will new vegetation be protected until it is established and how will weeds be monitored and managed?
9. Will the site be irrigated to help establish plants? For how long?
10. Describe research used in the selection of revegetation methods and species, given the topography, resoiling characteristics, and climate of the areas to be mined.
11. What are the revegetation success standards proposed and how/when will success be monitored? The success standards should include vegetative cover, density and species richness and be based on the vegetation inventory. (For example, if grass cover was 30% and there were 75 bitterbrush plants per acre before mining, you might propose 15% grass cover and 35 bitterbrush plants within five years of reclamation as meeting the success standard)

C. EROSION CONTROLS

1. How will slopes be protected from erosion during and after mining?
2. How will runoff and process water be controlled and treated to prevent sediment and pollution from being discharged off site?
3. Describe site-specific sediment and erosion control criteria and how the site will be monitored for said criteria.
4. What measures will be taken to protect onsite and downstream beneficial uses of water (including groundwater recharge potential)?
5. How will any affected streambeds, banks, channels, or drainages be rehabilitated?
6. How will contaminants (fuel, oil, asphalt oil, process chemicals) be controlled?

D. MONITORING

1. How, and by whom, will the regrading and revegetation effort be monitored?
2. How long will monitoring be needed before the reclamation success standards are expected to be met?
3. Who shall prepare monitoring reports and how often will they be submitted to the lead agency?

E. OTHER:

1. How will mine waste material (if any) be disposed of or treated?
2. What is the anticipated reclamation schedule?
3. What will be done with any equipment and structures left on site when mining and reclamation are complete?
4. What will be done with any on-site water wells after mining and reclamation are complete?
5. How will underground openings be treated to prevent public entry and preserve access for wildlife (e.g. bats)?

MAPS AND DIAGRAMS (ONE SET OF ALL MAPS MUST BE SUBMITTED ON PAPER NO LARGER THAN 11" X 17" TO ALLOW REPRODUCTION) It is strongly suggested that the applicant work with a qualified engineer or surveyor in preparing mine site maps, plans, and diagrams.

36) SUBMIT MAPS DRAWN TO SCALE OF THE FOLLOWING (All maps must include a bar (graphic) scale)

A. VICINITY MAP(S):

1. Vicinity map showing general location of the site, nearest community, major roads, etc. (a Lassen County Road Map Or the USGS Topographic Quad may be used);
2. Assessor's Parcel Map(s) showing the boundaries of the entire parcel(s) and portions(s) thereof involved in mining and related activities.

B. TOPOGRAPHIC MAPS:

1. Topographic map(s) of the site BEFORE mining and AFTER reclamation. Contour intervals should be appropriate for the site, generally in the range of five to twenty feet;
2. Cross-section(s) of mining site, including elevations BEFORE mining and AFTER reclamation.

C. SITE MAP(S) SHOWING:

1. Property lines, setbacks, current and/or pre-SMARA disturbance boundaries (if applicable), and proposed final boundary of mining operation.
2. Location of streams, drainage channels, ponds and lakes, wetlands, roads, railroads, utilities, buildings, etc., on and immediately adjacent to the site.
3. Location of existing and proposed new access/haul roads. Identify the public road(s) that provide access to and from the site and show the proposed route from the site to the public road; identify access roads, temporary roads to be reclaimed and any roads remaining for the end use.

D. SITE PLAN(S) SHOWING:

1. Property lines, setbacks, current and/or pre-SMARA disturbance boundaries (if applicable), and proposed final boundary of mining operation.
2. Excavation/pit area(s);
3. Waste dumps (if any);
4. Processing area(s) including all stockpiles (by type), equipment storage, fuel tanks, crusher, screening area, etc.;
5. Settling ponds (if proposed), drainage channels and sediment control facilities;
6. All structures proposed;
7. Existing or planned utilities;
8. Existing or planned wells serving the site;
9. The site plan should also show areas within the project site that WILL NOT be disturbed, and therefore will not be subject to reclamation. (Unless otherwise shown on the site plan and/or phasing plan, the County will assume that the entire site will be disturbed and subject to reclamation and overage in the financial assurance);
10. Operation phases (if phasing is proposed);
11. Other details as appropriate

*Please Include with Maps the Size and Legal Description of Lands Affected by Surface Mining Operations.

*All maps, diagrams, or calculations that are required to be prepared by a California-licensed professional shall include the preparer's name, license number, signature and seal.

STATEMENT OF RESPONSIBILITY

I, David McMurtry, on behalf of Geofortis Minerals LLC, do hereby accept full responsibility for
(print name)
reclaiming the lands herein described in accordance with the reclamation plan and all conditions
approved for this operation by Lassen County as lead agency.


(Signature)

1/11/22

(Date)

Position/Relationship to Operation: Vice President, Corporate Affairs

FINANCIAL ASSURANCES

Upon approval of the surface mining permit and reclamation plan, and prior to issuance of an "Authorization To Operate," financial assurance(s) ensuring that reclamation will be carried out in accordance with the approved reclamation plan must be submitted to and approved by Lassen County. Assurances may take the form of surety bonds, irrevocable letters of credit, certificates of deposit, or other forms of financial assurance acceptable to the State Mining and Geology Board and Lassen County.

Financial assurance instruments shall be made payable to "Lassen County and the Department of Conservation." Financial assurances, along with copies of the itemized estimate of reclamation costs (based on the approved reclamation plan) must be submitted to Lassen County for review and approval prior to issuance of the "Authorization To Operate." Reclamation assurances are subject to annual review and adjustment in consideration of operation compliance, inflation, reclamation performed, etc.

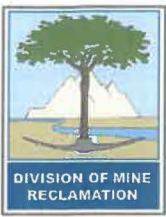
The permit application should be accompanied by a DETAILED itemized estimate of reclamation costs (using the current FACE form approved by the State Mining and Geology Board) including labor, equipment, mobilization and removal, materials such as seedlings, seed, fertilizer, mulch, irrigation system, top soil, etc., profit, overhead, long term monitoring (at least three years after reclamation is complete) and contingency. The assumption when preparing the estimate is that the mine operator is gone and the County or State must hire an independent contractor to do all reclamation work from beginning to end.

REPORTING RESPONSIBILITIES (Public Resources Code Section 2207)

Each operator is responsible for submitting a New Mining Operation Report to the lead agency and the Department of Conservation, Division of Mine Reclamation within 30 days of approval of a mining permit, reclamation plan, or financial assurance (CCR § 3697(a)); and to report annually thereafter by July 1st. Reporting forms and State reporting fees information are available from the Division of Mine Reclamation, 801 K Street MS 09-06, Sacramento, CA 96814-3529; telephone (916) 323-9198. The County also requires annual fees for mine administration and operations monitoring. Payment forms are sent by the County with the payment due date specified. Information can be obtained by phoning the Lassen County Department of Planning and Building at (530) 251-8269.

OTHER PERMITS REQUIRED

The operator is responsible to obtain all other permits from responsible agencies. For a sample list of other possible permit requirements please contact the Lassen County Department of Planning and Building at 707 Nevada Street, Susanville, CA 96130; telephone (530) 251-8269.



Reclamation Plan Content Checklist

The Division of Mine Reclamation (DMR) reviews reclamation plans for compliance and completeness pursuant to Public Resources Code (PRC) Section 2772.1(b)(1). When submitting a reclamation plan to DMR, the lead agency must certify that the reclamation plan is a complete submission and is in compliance with SMARA and associated regulations and the lead agency's mining ordinance pursuant to PRC 2772.1(a)(3) (A-E). Additionally, pursuant to PRC 2772.1(a)(2), information prepared as part of a permit application or environmental document (pursuant to CEQA) shall be incorporated into the reclamation plan if it is used to satisfy the requirements of SMARA and associated regulations. These items shall be properly indexed in a Required Contents Chart and included in an appendix to the reclamation plan.

This checklist may assist operators and lead agencies when preparing and reviewing draft proposed reclamation plans and reclamation plan amendments in determining if they meet the minimum content requirements of the Surface Mining and Reclamation Act of 1975 (SMARA) and associated regulations (see box below for sections relevant to reclamation plans).

Surface Mining and Reclamation Act of 1975
Public Resources Code (PRC)
Division 2. Geology, Mines and Mining
Chapter 9. Surface Mining and Reclamation Act of 1975
Section 2710 et seq.

This portion includes requirements for reclamation plans.

Associated Regulations
California Code of Regulations (CCR)
Title 14. Natural Resources
Division 2. Department of Conservation
Chapter 8. Mining and Geology
Subchapter 1. State Mining and Geology Board

Article 1. Surface Mining and Reclamation Practice. Commencing with Section 3500

This portion includes minimum acceptable mining and reclamation practices for surface mining operations.

Article 9. Reclamation Standards. Commencing with Section 3700

This portion includes performance standards, which may apply to surface mining operations pursuant to CCR Section 3700.

The checklist is divided into seven topical areas: General Considerations, Geology and Geotechnical, Hydrology and Water Quality, Sensitive Species and Habitat, Topsoil, Revegetation, and Agriculture. To use the checklist, place a checkmark next to items that have been addressed by the reclamation plan or leave it blank if the reclamation plan is deficient. Alternatively, write N/A if the item is not applicable to the specific surface mining operation being reviewed.

Disclaimer: This checklist, prepared by DMR, paraphrases portions of SMARA and associated regulations that address the content of reclamation plans and plan amendments. DMR staff uses this checklist internally in performing our review of reclamation plans. However, use of this checklist is not required and it is provided only as a helpful tool. DMR always recommends consulting the full text of SMARA and associated regulations, available at the link below. Additionally, completion of this checklist does not guarantee completeness or compliance of the reclamation plan pursuant to PRC Section 2772.1(b)(1). Analysis of completeness and compliance requires thorough review of each specific project.

<http://www.conservation.ca.gov/index/Pages/lawsregs.aspx>

Mine Name:Geofortis Minerals Cal Min Claims	Checklist Completed by:Lonnie Roy
End Use:	Date:01/11/2022

GENERAL CONSIDERATIONS

Authority	Requirements/Practices/Standards	✓ or N/A
PRC 2772(b)	Required contents chart: A chart identifying the location (e.g. page number, chapter, appendix, or other location in the reclamation plan) of content that meets the requirements of PRC Sections 2772, 2773, 2773.3 and CCR Articles 1 and 9 (as delineated in this checklist).	
PRC 2772(c)(1)	Contact information: Name and address of the surface mining operator and any person designated by the operator as an agent for service of process (must reside in CA).	MP p.2-3
PRC 2772(c)(2)	Material quantity and type: The anticipated total quantity and type of minerals to be mined (see Annual Report Instructions, Exhibit B, for mineral types and units of measure).	MP p.5-6
PRC 2772(c)(3)	Dates: The initiation and termination dates of mining (be as specific as possible, e.g. December 31, 2030).	MP p. 9
PRC 2772(c)(4)	Depth of mining: The maximum anticipated depth of surface mining in relation to a verifiable benchmark such as Mean Sea Level.	Rec Plan Form
PRC 2772(c)(5) (A-F)	Reclamation plan maps shall include: Size and legal description of lands affected by surface mining operations;	MP App A
	Names and addresses of owners of all surface interests and mineral interests;	MP p. 2-3
	Property lines, setbacks, and the reclamation plan boundary;	MP App A
	Existing and final topography with contour lines at appropriate intervals;	MP Fig 3
	Detailed geologic description of the area of the surface mining operation;	MP p. 5-6
	Locations of railroads, utility features, and roads (access roads, temporary roads to be reclaimed, and any roads remaining for the end use).	MP p. 6
	All maps, diagrams, or calculations that are required to be prepared by a California-licensed professional shall include the preparer's name, license number, signature & seal.	NA
PRC 2772(c)(6)	Mining method and schedule: A description of the mining methods and a time schedule that provides for completion of mining on each segment so that reclamation can be concurrent or phased.	MP p.5, 9-10
PRC 2772(c)(7)	Subsequent use(s): A description of the proposed subsequent use(s) after reclamation	Rec Plan Form
	Evidence that all landowners have been notified of the proposed use.	MP App E
PRC 2772(c)(9)	Impact on future mining: A statement regarding the impact of reclamation on future mining on the site.	Rec Plan Form
PRC 2772(c)(10)	Signed statement: Statement signed by the operator accepting responsibility for reclamation of the mined lands per the reclamation plan.	Rec Plan Form
PRC 2776(b-c)	Pre-SMARA areas: Reclamation plans shall apply to operations conducted after January 1, 1976 or to be conducted in the future. Mined lands disturbed prior to January 1, 1976 <i>and not disturbed after that date</i> may be excluded from the reclamation plan.	NA
CCR 3502(b)(2)	Public health and safety: A description of how any potential public health and safety concerns that may arise due to	MP p. 11

	exposure of the public to the site will be addressed.	
CCR 3709(a)	Equipment storage and waste disposal: Designate areas for equipment storage and show on maps.	MP Fig 3, p. 6,9
	All waste shall be disposed of in accordance with state and local health and safety ordinances.	MP p.7
CCR 3709(b)	Structures and equipment removed: Structures and equipment should be dismantled and removed at closure, except as demonstrated to be necessary for the proposed end use.	MP p. 18
CCR 3713(a)	Well closures: Drill holes, water wells, monitoring wells will be completed or abandoned in accordance with laws, unless demonstrated necessary for the proposed end use.	MP p. 13
CCR 3713(b)	Underground openings: Any portals, shafts, tunnels, or openings will be gated or protected from public entry, and to preserve access for wildlife (e.g. bats).	NA

GEOLOGY AND GEOTECHNICAL

Authority	Requirements/Practices/Standards	✓ or N/A
PRC 2772(c)(5)	A description of the general geology of the area	MP p. 5,6
	A detailed description of the geology of the mine site.	MP p.5,6
PRC 2773.3	If a metallic mine is located on, or within one mile of, any "Native American sacred site" and is located in an "area of special concern," the reclamation plan shall require that all excavations and/or excess materials be backfilled and graded to achieve the approximate original contours of the mined lands prior to mining.	NA
CCR 3502(b)(4)	The source and disposition of fill materials used for backfilling or grading shall be considered in the reclamation plan.	NA
CCR 3502(b)(3)	The designed steepness and treatment of final slopes must consider the physical properties of slope materials, maximum water content, and landscaping.	MP p. 13,14
	The reclamation plan shall specify slope angles flatter than the critical gradient for the type of slope materials.	MP p. 14,15
	When final slopes approach the critical gradient, a Slope Stability Analysis will be required.	NA
CCR 3704.1	Backfilling required for surface mining operations for metallic minerals.	NA
CCR 3704(a)	For urban use, fill shall be compacted in accordance with Uniform Building Code, local grading ordinance, or other methods approved by the lead agency.	NA
CCR 3704(b)	For resource conservation, compact to the standards required for that end use.	✓
CCR 3704(d)	Final reclamation fill slopes shall not exceed 2:1 (H:V), except when allowed by site-specific engineering analysis, and the proposed final slope can be successfully revegetated. See also Section 3502(b)(3).	MP p.15
CCR 3704(e)	At closure, all fill slopes shall conform with the surrounding topography or approved end use.	MP p.15
CCR 3704(f)	Final cut slopes must have a minimum slope stability factor of safety that is suitable for the end use and conforms with the surrounding topography or end use.	MP p.15

HYDROLOGY AND WATER QUALITY

Authority	Requirements/Practices/Standards	✓ or N/A
PRC 2770.5	For operations within the 100-year flood plain (defined by FEMA) and within one mile up- or downstream of a state highway bridge, Caltrans must be notified and provided a 45-day	NA

	review period by the lead agency.	
PRC 2772(c)(8)(A)	Description of the manner in which contaminants will be controlled and mine waste will be disposed.	NA
PRC 2772(c)(8)(B)	The reclamation plan shall include a description of the manner in which stream banks/beds will be rehabilitated to minimize erosion and sedimentation.	MP p. 9
PRC 2773(a)	The reclamation plan shall establish site-specific sediment and erosion control criteria for monitoring compliance with the reclamation plan.	MP p.9
CCR 3502(b)(6)	Temporary stream and watershed diversions shall be detailed in the reclamation plan.	NA
CCR 3503(a)(2)	Stockpiles of overburden and minerals shall be managed to minimize water and wind erosion.	MP 13,14
CCR 3503(b)(2)	Operations shall be conducted to substantially prevent siltation of groundwater recharge areas.	NA
CCR 3503(a)(3)	Erosion control facilities shall be constructed and maintained where necessary to control erosion.	MP p.13,14
CCR 3503(b)(1)	Settling ponds shall be constructed where they will provide a significant benefit to water quality.	NA
CCR 3503(d)	Disposal of mine waste and overburden shall be stable and shall not restrict natural drainage without suitable provisions for diversion.	NA
CCR 3503(e)	Grading and revegetation shall be designed to minimize erosion and convey surface runoff to natural drainage courses or interior basins.	MP p.13,14
	Spillway protection shall be designed to prevent erosion.	NA
CCR 3706(a)	Surface mining and reclamation activities shall be conducted to protect on-site and downstream beneficial uses of water.	MP p.13,14
CCR 3706(b)	Water quality, recharge potential, and groundwater storage that is accessed by others shall not be diminished.	NA
CCR 3706(c)	Erosion and sedimentation shall be controlled during all phases of construction, operation, reclamation, and closure of surface mining operations to minimize siltation of lakes and water courses as per RWQCB/SWRCB.	MP p.13,14
CCR 3706(d)	Surface runoff and drainage shall be controlled to protect surrounding land and water resources.	MP p.13,14
	Erosion control methods shall be designed for not less than 20 year/1 hour intensity storm event.	MP p.13,14
CCR 3706(e)	Impacted drainages shall not cause increased erosion or sedimentation. Mitigation alternatives shall be proposed in the reclamation plan.	NA
CCR 3706(f)(1)	Stream diversions shall be constructed in accordance with the Lake and Streambed Alteration Agreement (LSAA) between the operator and the Department of Fish and Wildlife.	MP p.7,8
CCR 3706(f)(2)	Stream diversions shall also be constructed in accordance with Federal Clean Water Act and the Rivers and Harbors Act of 1899.	MP p.7,8
CCR 3706(g)	All temporary stream diversions shall eventually be removed and the affected land reclaimed.	NA
CCR 3710(a)	Surface and groundwater shall be protected from siltation and pollutants in accordance with the Porter-Cologne Act, the Federal Clean Water Act, and RWQCB/SWRCB requirements.	MP p.13,14
CCR 3710(b)	In-stream mining shall be conducted in accordance with Section 1600 et seq. of the California Fish and Game Code, Section 404 of the Clean Water Act, and Section 10 of the Rivers and Harbors Act of 1899.	NA
CCR 3710(c)	In-stream mining shall be regulated to prevent impacts to structures, habitats, riparian vegetation, groundwater levels, and banks.	NA
	In-stream channel elevations and bank erosion shall be evaluated annually using extraction quantities, cross-sections, and aerial photos.	NA
CCR 3712	Mine waste and tailings and mine waste disposal units are governed by SWRCB waste disposal regulations and shall be reclaimed in accordance with this article: CCR Article 1. Surface Mining and Reclamation Practice. Section 3500 et seq.	NA

SENSITIVE SPECIES AND HABITAT

Authority	Requirements/Practices/Standards	✓ or N/A
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CCR 3502(b)(1)	A description of the environmental setting (identify sensitive species, wildlife habitat, sensitive natural communities, e.g. wetlands).	MP p.15, BEC Report
	Impacts of reclamation on surrounding land uses.	MP p.20
CCR 3503(c)	Fish and wildlife habitat shall be protected by all reasonable measures.	MP p.15
CCR 3703(a)	Sensitive species shall be conserved or mitigated as prescribed by the federal and California Endangered Species Acts.	MP p.15, 10-12
CCR 3703(b)	Wildlife habitat shall be established on disturbed land at least as good as pre-project, unless end use precludes its use as wildlife habitat.	MP p.20
CCR 3703(c)	Wetlands shall be avoided or mitigated at 1:1 minimum for both acreage and habitat value.	NA
CCR 3704(g)	Piles or dumps shall not be placed in wetlands without mitigation.	NA
CCR 3710(d)	In-stream mining shall not cause fish to be trapped in pools or off-channel pits, or restrict migratory or spawning activities.	NA

TOPSOIL

Authority	Requirements/Practices/Standards	✓ or N/A
CCR 3503(a)(1)	Removal of vegetation and overburden preceding mining shall be kept to a minimum.	MP p.6
CCR 3503(f)	When the reclamation plan calls for resoiling, mine waste shall be leveled and covered with a layer of finer material. A soil layer shall then be placed on this prepared surface.	NA
	The use of soil conditioners, mulches, or imported topsoil shall be considered where such measures appear necessary.	MP p.16
CCR 3704(c)	Mine waste shall be stockpiled to facilitate phased reclamation and kept separate from topsoil or other growth media.	MP p.16
CCR 3705(e)	If soil is altered or other than native topsoil, soil analysis is required. Add fertilizers or soil amendments if necessary.	NA
CCR 3711(a)	All salvageable topsoil shall be removed as a separate layer.	MP p.16
	Topsoil and vegetation removal should not precede mining by more than one year.	MP p.6
CCR 3711(b)	Topsoil resources shall be mapped prior to stripping and location of topsoil stockpiles shown on map included in the reclamation plan.	NA
	Topsoil and other growth media shall be maintained in separate stockpiles.	MP p.16
	Test plots may be required to determine the suitability of growth media for revegetation purposes.	MP p.16
CCR 3711(c)	Soil salvage operations and phases of reclamation shall be set forth in the reclamation plan to minimize the area disturbed and to achieve maximum revegetation success.	MP p.6
CCR 3711(d)	Topsoil and growth media shall be used to phase reclamation as soon as can be accommodated following the mining of an area.	MP p.14
	Topsoil stockpiles shall not be disturbed until needed for reclamation.	MP p.16
	Topsoil stockpiles shall be clearly identified with signs.	MP p.16
	Topsoil shall be planted with vegetation or otherwise protected to prevent erosion and discourage weeds.	MP p.16
CCR 3711(e)	Topsoil shall be redistributed in a manner resulting in a stable, uniform thickness consistent with the end use.	MP p.16

REVEGETATION

Authority	Requirements/Practices/Standards	✓ or N/A
PRC 2773(a)	The reclamation plan shall be specific to the property and shall establish site-specific criteria for evaluating compliance with the reclamation plan with respect to revegetation.	MP p.20
CCR 3503(g)	Available research regarding revegetation methods and selection of species given the topography, resoiling characteristics, and climate of the mined areas shall be used.	MP p.15
CCR 3705(a)	Baseline studies shall be conducted prior to mining activities to document vegetative cover, density, and species richness.	BEC Report
	Vegetative cover shall be similar to surrounding habitats and self-sustaining.	MP p.20
CCR 3705(b)	Test plots shall be conducted simultaneously with mining to ensure successful implementation of the proposed revegetation plan.	MP p.16
CCR 3705(c)	Decompaction methods, such as ripping and dishing, shall be used in areas to be revegetated to establish a suitable root zone for planting.	MP p.16
CCR 3705(d)	Roads shall be stripped of roadbase materials, resoiled, and revegetated, unless exempted.	MP p.16
CCR 3705(f)	Temporary access shall not disrupt the soil surface on arid lands except where necessary for safe access. Barriers shall be installed to keep unauthorized vehicles out.	NA
CCR 3705(g)	Use local native plant species (unless non-native species meet the end use).	MP p.15
	Areas to be developed for industrial, commercial, or residential shall be revegetated for the interim period to control erosion.	NA
CCR 3705(h)	Planting shall be conducted during the most favorable period of the year for plant establishment.	MP p.16
CCR 3705(i)	Use soil stabilizing practices and irrigation when necessary to establish vegetation.	NA
CCR 3705(j)	If irrigation is used, demonstrate that revegetation has been self-sustaining without irrigation for two years prior to the release of financial assurance.	NA
CCR 3705(k)	Noxious weeds shall be monitored and managed.	MP p.12
CCR 3705(l)	Plant protection measures such as fencing and caging shall be used where needed for revegetation success. Protection measures shall be maintained until revegetation efforts are successfully completed and the lead agency authorizes removal.	NA
CCR3705(m)	Quantitative success standards for vegetative cover, density, and species richness shall be included in the reclamation plan.	MP p.20
	Monitoring to occur until success standards have been achieved.	MP p.20
	Sampling techniques for measuring success shall be specified. Sample size must be sufficient to provide at least an 80 percent statistical confidence level.	MP p.20

AGRICULTURE

Authority	Requirements/Practices/Standards	✓ or N/A
CCR 3707(a)	Where the end use will be agriculture, prime agricultural land shall be returned to a fertility level specified in the reclamation plan.	NA
CCR 3707(b)	Segregate and replace topsoil in proper sequence by horizon in prime agricultural soils.	NA
CCR 3707(c)	Post reclamation productivity rates for prime agricultural land must be equal to pre-project condition or to a similar site for two consecutive years.	NA
	Productivity rates shall be specified in the reclamation plan.	NA
CCR 3707(d)	If fertilizers and amendments are applied, they shall not cause contamination of surface or groundwater.	
CCR 3708	For sites where the end use is to be agricultural, non-prime agricultural land must be reclaimed to be capable of sustaining economically viable crops common to the area.	NA

Mining Plan for SMARA Application

Geofortis Minerals, LLC Cal Min Claims 121, 124-126, 131-132, 137, 159

January 2022

Submitted by:

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Geofortis Minerals, LLC
Cal Min 121, 124-126, 131-132, 137, 159
Mining Plan

Table of Contents

INTRODUCTION	1
1. Operator/Claimant Information	2
1.1. Operator Information	2
1.2. Corporate Information	2
1.3. Claimant/Claim Information	3
1.4. Private Land Owner	3
2. Description of Operations	4
2.1. Legal Description	4
2.2. Description of Operations	4
2.2.1. Maps and Plans	4
2.2.2. Equipment	4
2.2.3. Operating Practices	5
2.2.4. Mining Operations	5
2.2.5. Ancillary Facilities	6
2.2.6. Water Management Plan	7
2.2.7. Access and Other Roads	8
2.2.8. Use and Occupancy	9
2.2.9. HAZMAT/Spill Contingency Plans	9
2.2.10. Rock Characterization and Handling Plans	9
2.2.11. Quality Assurance Plan	9
2.2.12. General Schedule of Operation from Start through Closure	9
2.2.13. Environmental Protection Measures	10
2.2.14. Land Disturbance	12
3. Reclamation Plan	13
3.1. Drill-Hole Plugging	13
3.2. Regrading and Reshaping	13

3.3.	Mine Reclamation	14
3.4.	Riparian Mitigation	15
3.5.	Wildlife Habitat Mitigation	15
3.6.	Topsoil Handling and Revegetation	16
3.7.	Isolation and Control of Acid-Forming, Toxic, or Deleterious Materials	18
3.8.	Removal or Stabilization of Buildings, Structures, and Support Facilities	18
3.9.	Post-Closure Management	18
3.10.	Public Safety.....	19
4.	Monitoring Plan	20
4.1.	Monitoring Plan Requirements.....	20
5.	Interim Management Plan	22
5.1.	Measures to Stabilize Excavations and Workings.....	22
5.2.	Measures to Isolate or Control Toxic or Deleterious Materials.....	22
5.3.	Provisions for the Storage or Removal of Equipment, Supplies, and Structures.....	22
5.4.	Measures to Maintain the Project Area in a Safe and Clean Condition	23
5.5.	Plans for Monitoring Site Conditions during Periods of Non-Operation	23
5.6.	Schedule of Anticipated Periods of Temporary Closure	23
6.	Reclamation Cost Estimate.....	24
6.1.	Overview	24
6.2.	Equipment Mobilization/Demobilization.....	24
6.3.	Agency Administrative/Management.....	24
6.4.	Equipment Operating Rates and Costs	25

Appendix A: Figures

Appendix B: Cost Estimate

Appendix C: Claim Information

Appendix D: Spill Contingency Plan

Appendix E: Woolly Buckwheat Information

Appendix F: Land Owner Notification

Geofortis Minerals, LLC
Cal Minerals Claims 121, 124-126, 131-132, 137, 159
Mining Plan

INTRODUCTION

This Mining Plan (Plan) is submitted by Geofortis Minerals LLC (Geofortis) to Lassen County (County) for Geofortis' Claims CAL MIN 121, 124-126, 131-132, 137, 159 (Project), in accordance with the BLM Surface Management Regulations 43 Code of Federal Regulations (CFR) 3809 and State of California regulations.

The Project is located on private land where the mineral rights were reserved and on public land administered by the BLM in part or all of the E½ SE¼ & SW¼ SE¼ of Section 11, and N½ NE¼ & NE¼ NW¼ of Section 14, all within T. 23 N., R. 17 E. M.D.B.&E. in Lassen County, California. The Project Area consists of mining claims CAL MIN 121, 124-126, 131-132, 137, and 159, which totals approximately 160 acres of land, and associated access routes. Approximately 20 acres within mining claim 159 and portions of the access routes are on public land, with the remaining 140 acres on private land. The Project Area can be accessed from US Highway 395, approximately 5.5 miles north of the intersection of US Highway 395 and California State Route 70. Please refer to Figure 1 for the Project Area.

Geofortis proposes to establish an 83-acre pozzolan materials mining operation within the Project Area under this Plan. The Project will be a year-round operation, with mining and screening operations generally on a seasonal schedule, and loading and hauling operations on a year-round schedule. The proposed operation will include excavations through three (3) Phases and will include a mobile crushing and screening spread as well as stockpiling and hauling operations. Phase I mining operations will be located on mining claims 124-126, 131, 132, 137, and 159 and may produce 3.45 million cubic yards of pozzolan material. Phase II mining operations will be located on mining claims 124-126 and may produce 4.49 million cubic yards of pozzolan material. Phase III mining operations will take place on mining claim 121 and may produce 0.67 million cubic yards of pozzolan material. The entire operation may produce a total of 8.61 million cubic yards of pozzolan material. At full production, the mining operation is expected to produce an average of 250,000 cubic yards and a maximum of 500,000 cubic yards of pozzolan materials per year. Actual phasing may vary depending on site conditions.

Geofortis proposes to construct a new access road to the mining operation by amending the existing CalTrans Encroachment Permit (0295-6RM-0163). An existing road approaches US Highway 395 from the west at postmile 10.1. The proposed 1000-foot access road will extend due east from postmile 10.1 to the Project Area Boundary in mining claim 131. Haulage traffic will occur on southbound US Highway 395 to an off-site mill located in Stead, Nevada. Geofortis will apply for a right-of-way for the access road through BLM land. This roadway will be on CalTrans right-of-way and BLM land. A portion of the roadway will be excavated through a ridge line to allow access to the Project Area. The ridge line will serve a natural barrier between the US Highway 395 corridor and the proposed Project Area in order to minimize views of the mining operation from the highway.

1. Operator/Claimant Information

1.1. Operator Information

<u>Operator Name:</u>	Geofortis Minerals, LLC
<u>Mailing Address:</u>	30 S. Tooele Blvd. Tooele, UT 84074
<u>Phone Number:</u>	925-348-3535
<u>Tax Payer Identification Number:</u>	47-5166521
<u>Point of Contact:</u>	David McMurtry 30 S. Tooele Blvd. Tooele, UT 84074 Office: 925-348-3535 Cell: 925-348-3535

1.2. Corporate Information

<u>Corporation:</u>	Geofortis Minerals, LLC 30 S. Tooele Blvd. Tooele, UT 84074 Office: 925-348-3535
<u>President/CEO & Treasurer:</u>	David Jarrett Office: (907) 278-6100
<u>Secretary:</u>	Jim Bowen Office: 305-509-1615

1.3. Claimant/Claim Information

<u>Claimant:</u>	Geofortis Minerals LLC 30 S. Tooele Blvd. Tooele, UT 84074 Office: 925-348-3535
<u>Claim Name:</u>	CAL MIN 121, 124-126, 131-132, 137, 159
<u>Claim Type:</u>	Placer
<u>BLM Serial Number of Mining Claims:</u>	CA056029 See Figure 1 for Location of Claims
<u>Location of Claim (Township, Range, Section):</u>	E½ SE¼ & SW¼ SE¼ of Section 11, N½ NE¼ & NE¼ NW¼ of Section 14, all within T 23 N, R 17 E MDB&E
<u>Primary Commodity:</u>	Pozzolan Materials

1.4. Private Land Owner

<u>Owner:</u>	Avalanche Funding 5040 Acoma Street Denver, CO 80216 Attn: Fred Orr
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2. Description of Operations

2.1. Legal Description

The Project is located on private land and on public land administered by the BLM in part or all of the E½ SE¼ & SW¼ SE¼ of Section 11, and N½ NE¼ & NE¼ NW¼ of Section 14, all within T. 23 N., R. 17 E. M.D.B.&E. in Lassen County, California. The Project Area may also be described as part of or all of Parcel Numbers 145-030-16-11, 145-050-04-11, and 145-050-12-11. The Project Area contains approximately 160 acres, of which 20 acres within mining claim 159 are on public land and the remaining 140 acres on private land, with portions of the associated access routes will be located on public land. There are no portions of the Project Area Boundary on National Forest System or State lands. Please refer to Figure 1 for the Project Area Boundary.

2.2. Description of Operations

The following section describes the proposed mining activities within the Project Area encompassing Claims CAL MIN 121, 124-126, 131-132, 137, 159.

2.2.1. Maps and Plans

The following figures detail the proposed mining activities and supporting facilities for the Project. Please refer to Appendix A for the figures.

Figure 1: Project Area Boundary

Figure 2: Process Flow Diagram

Figure 3: Mine Plan Phase I & II

Figure 4: Mine Plan Phase III

2.2.2. Equipment

Equipment to be used on site includes:

- Loader(s)
- Skid Steer
- Haul Trucks
- Dozer
- Excavator
- Water Truck / Pull for Dust Control
- Service equipment as necessary (crane, service/ fuel/ lube truck, pick-ups & employee vehicles)
- Traditional crushing and screening equipment for production of aggregates
 - Crushing and Screening Plant
 - Conveyors & Stacking Conveyors
 - Dozer Trap Feeder

2.2.3. Operating Practices

On-site operations will include the mining of pozzolan materials using dozers to rip and push materials, and excavators mining on a moving wall. An on-site, mobile crushing and screening spread will crush the material, typically to ¾" minus. It is expected that an average of 250,000 cubic yards of pozzolan material can be produced each year, with a maximum production up to 500,000 cubic yards each year. The pozzolan material will be stockpiled onsite, where a small dozer will regularly turn the stockpile to dry the material. The operation will be capable of processing materials 7 days a week. Haul trucks will move material on southbound US Highway 395 to an off-site mill located in Stead, Nevada for further processing 5 days a week. The off-site mill and route are not located on public land. A portion of the access road to the mining operation is located on public land. It is expected that approximately 70 truckloads per day would move material off-site at full capacity.

2.2.4. Mining Operations

Lassenite™ is a pozzolan deposit of lacustrine tuffaceous sediments, typically a combination of volcanic ash and diatoms. It contains high concentrations of silica dioxide and alumina oxides. Sedimentary deposits in the Long Valley area were briefly described by Van Couvering (1962) while mapping an area west of Long Valley. The first detailed examination was performed for Cherokee Industries, Inc. (Goodman et al., 1974), and included geologic mapping, drilling, paleontology, laboratory analyses, and geophysics. The most recent work by Downey and Kohler (2001) drew heavily on that report and described the pozzolan potential in Long Valley. These two reports and Bonham and Papke (1969) provide the basis for following descriptions of the depositional environment.

Long Valley is one of many depositional basins in northeastern California and northwestern Nevada. These basins formed over the last several million years as a result of downward movement along broadly north-south trending fault zones. Rocks underlying Long Valley consist of Cretaceous quartz monzonite, a type of granitic rock, and the Hartford Hill Rhyolite, a volcanic deposit widespread in the region. The quartz monzonite is roughly 60 million years old (myo), and the Hartford Hill, about 11 myo.

As the basin subsided, alluvial sediments were deposited from the adjoining highlands. At the edges of the basin, these often consisted of coarse-grained gravel to boulder conglomerate on alluvial fans. The sediments became finer-grained toward the basin center, and there were often dominated by arkose, a type of sandstone. During this process, the climate fluctuated, and at times the basin contained a lake that varied in extent and depth. Locally within the lake were bedrock highlands, some of which appear to have been islands.

Over time, depositional conditions in the lake were generally quiescent, though intervals of high-energy sedimentation are evident from associated local deltaic and stream deposits. Volcanic ash of rhyolitic composition from multiple eruptions fell into the lake and accumulated as massive to laminated siltstone and shale, often containing the skeletons (frustules) of diatoms, which are

microscopic single-celled plants. It is this material that produced the pozzolan deposits that were marketed as "Lassenite" by Cherokee Industries and others.

Aquatic fossils indicate that the lake contained fresh water and was well-aeriated during sedimentation. At times, the lake was very shallow and may have vanished altogether. Mammal fossils found during the Goodman et al. (1974) study suggest that the Lassenite sedimentation probably took place about 3 million years ago and may have persisted for a million years or more. The precise duration is not known, and at present can only be inferred from the thickness of these units. Eventually, the climate again changed, and as the basin continued to subside, the lake received increasing amounts of high-energy coarse sediments, predominantly arkose and conglomerate along its edges. This change was gradual, so that pozzolanic layers are sometimes found interbedded with arkose and siltstone. The basin gradually filled, and coarse material from adjoining mountains was deposited throughout much of the valley.

The proposed open pit mining operation will commence as three phases as shown on Figure 1. Phase I mining operations will be located on mining claims 124-126, 131, 132, 137, and 159 on the east side of US Highway 395. A moving wall excavation will commence on the east side of the ridge located in mining claim 131. The ridge will serve as a natural barrier to minimize views from US Highway 395. The moving wall will continue north and east from the access road into claims 132, 137, and 159. The Phase I project area covers an area of 34.47 acres and may produce 3.45 million cubic yards of pozzolan material. The Phase I operation has an expected lifetime of 7-14 years.

Phase II mining operations will be located on mining claims CAL MIN 124-126 on the east side of US Highway 395, where a moving wall will continue south across the mining claims. The ridge running through claims 123 and 124 will serve as a natural barrier to minimize views from US Highway 395. The Phase II project area covers an area of 34.93 acres and may produce 4.49 million cubic yards of pozzolan material. The Phase II operation has an expected lifetime of 9-18 years.

The phase III site will be accessed from the existing intersection at postmile 10.1 on US Highway 395, which is permitted through TR-0120 Encroachment Permit (Permit No. 0295-6RM-0163) issued by the California Department of Transportation. Refer to Figure 4 for the location of the access road. The moving wall will continue south across the mining claims. The Phase III project area covers an area of 13.37 acres and may produce 0.67 million cubic yards of pozzolan material. The Phase III operation has an expected lifetime of 1-3 years.

A mobile crushing and screening spread will process pozzolan materials from all three phases of the mining operation. Crushed $\frac{3}{4}$ " minus pozzolan materials will be stockpiled for hauling off-site.

2.2.5. Ancillary Facilities

The mobile crushing and screening spread will consist of a portable crusher and screening plant capable of processing up to 100,000 cubic yards per month. Two conveyor systems will be utilized

to form stockpiles for processed pozzolan materials and for reject materials. Stockpiles will be located near the access road to allow for quick loading of hauling vehicles. Power for the mobile crushing and screening spread may be provided by a generator permitted through the Lassen County Air Pollution Control District or through CalEPA Air Resources Board's (ARB) Statewide Portable Equipment Registration Program (PERP).

Additional structures may include a mobile administration building to provide office space, break room for personnel, and storage of plans and permits. Portable restrooms will be provided and serviced weekly. Fencing and gates will be installed at the new access road.

A maintenance shop will not be established at the facility. A mobile maintenance truck will be utilized to service equipment. Small storage containers and fuel tanks may be placed at the facility for maintenance and refueling of equipment. A truck scale will be provided at the egress of the mining operation. No waste will be disposed of onsite and will be handled in accordance with state and local health and safety regulations.

Stormwater diversion structures will be implemented as Phase I of the mining operation moves toward a wash and Phase III of the mining operation disturbs a wash. The diversion structures are further described in Section 2.2.6.

2.2.6. Water Management Plan

Stormwater Management

The proposed Project Area is undisturbed with a cover of sagebrush, sparse grasses and dispersed small trees. The general topography of the area is hilly terrain and generally slopes to the north. Several ephemeral washes run through the Project Area, which will be diverted away from active mining areas. Refer to Figures 3 and 4 for the locations of the washes and proposed diversionary structures.

Site drainage in Phase I is by sheet flow to an ephemeral wash that traverses the site through mining claims 132 and 137. The wash is located east of proposed mining activities, which will not divert, alter, or in any way disturb this wash. Temporary berms will be constructed along the edges of the active mining areas to prevent storm flow from entering the area, if needed. The berms will be approximately 60 inches in height and will be constructed from mined reject materials. In addition, the proposed access road crosses a wash on the west side of Phase I operations. A culvert and headwalls will be installed to direct stormwater under the access road.

Onsite drainage in Phase II is by sheet flow to the ephemeral wash. However, two tributaries convey offsite flows through the proposed Project Area in mining claims 125 and 126. A diversionary ditch will be constructed along the southern boundary of Phase II, to divert stormwater flows around the mining activities and discharge into the wash to the east.

Site drainage in Phase III is by sheet flow to the northeast, where flows enter into three washes that converge into a single wash within the Project Area. A berm is proposed along the southern

boundary of Phase III to prevent stormwater from entering the Project Area. In addition, a diversion channel will be constructed within one of the benches to divert water from the mining area. The wash continues north and crosses under the existing access road through an existing culvert.

The Project Area is not located within a 100-year flood zone per FEMA Map Panel No. 06035C2800D. A 50-year, 24-hour design storm event in the area is expected to yield 4-6 inches of rainfall. This design storm event will be used to size diversion channels, culverts, and the detention basin in the Hydrology Report.

Dust Control

Water will be provided to the facility for use as dust control from an existing industrial well leased to Geofortis. The well is identified as 23N17E02N001M with the California Department of Water Resources. The well is located in Section 2 of T23N, R17E MDB&E, being further described at coordinates Lat. 39.87° N, Lon. 120.05° W. Water trucks will draw water from the well and deliver to the Project Area. At full production, it is expected that 15,000 gallons per day are required for dust control operations.

2.2.7. Access and Other Roads

Geofortis holds a TR-0120 Encroachment Permit (Permit No. 0295-6RM-0163) through the California Department of Transportation at postmile 10.1 on US Highway 395. The Encroachment Permit serves an existing access road to existing claims in the name of Interest Income Partners under Surface Mining Plan #95004. Geofortis will modify the Encroachment Permit to establish a new intersection on the east side of US Highway 395. This intersection will service all three Phases of the Project.

Geofortis will construct a 1000-foot long, gravel access road from US Highway 395 to mining claim 131. This road will serve as an access and haul road during Phases I and II of the mining operation on the east side of US Highway 395. The proposed road will be located along the northern boundary of the NW¼ NE¼ of Section 14, T. 23 N., R. 17 E., M.D.B.&E. through BLM land. The access road will be 35 feet wide and have a 12% slope upon entering the Project Area. The side slopes for the access road will be 1.5:1 with 10-ft wide benches every 15 vertical feet. Refer to Figure 3 for the location of the proposed access road.

The existing Encroachment Permit and the existing access road to the Interest Income Partners claims on the west side of US Highway 395 will serve as an access and haul road during Phase III of the mining operation. The existing road will be extended to provide access to the mining claims south of the existing access road. The 700-foot long, gravel access road will extend into mining claims 121. The access road will be 35 feet wide and have a 12% slope upon entering the Project Area. The side slopes for the access road will be 1.5:1 with 10-ft wide benches every 15 vertical feet. Refer to Figure 1 for the location of the proposed access road.

Mining and screening operations are anticipated to operate seasonally from April-November. Deliveries to the Project are estimated to be up to 1 trip per day. Employee travel is initially estimated at approximately 15 roundtrips per day. Loading and hauling operations will occur on a year-long basis. Approximately 70 truckloads per day, on a 5 day per week schedule, will be required to haul processed pozzolan materials during normal operations. Roadways will be maintained and regraded as necessary. Loading and hauling operations will occur year-round and on weekends depending on market demand or weather conditions.

2.2.8. Use and Occupancy

Residential buildings or structures will not be utilized in the Project. A mobile office building may provide office space, break room for personnel, and storage of plans and permits. Portable restrooms will be provided and serviced weekly.

2.2.9. HAZMAT/Spill Contingency Plans

No chemicals or hazardous materials will be utilized at the Project. The only potential spills on the Project site could come from equipment fuel and oil. These will be cleaned up in accordance with the Spill Contingency Plan provided in Appendix D.

2.2.10. Rock Characterization and Handling Plans

There are no materials within the Project Area that have the potential to generate acid or deleterious leachate. Therefore, acid mine drainage is not a part of this Plan.

2.2.11. Quality Assurance Plan

The proposed mining plan does not have permanent structures or proposed mining operations that require complex design or monitoring. The mining operation will be completely above ground and traditional grading equipment will be used. There will be no leaching pads or tailings piles as part of the operation. No industrial ponds are proposed. An industrial Stormwater Pollution Prevention Plan (SWPPP) will be required to prevent contamination of the runoff from the site. No chemicals will be brought onsite to be used in the mining operation.

2.2.12. General Schedule of Operation from Start through Closure

Mining and screening operations will generally be a seasonal operation from April-November, whereas loading and hauling operations will be conducted year-round, 5-days a week. Loading and hauling operations will occur year-round and on weekends depending on market demand or weather conditions. The following general schedule of operations will commence upon approval of this Plan by the County and BLM and completion of processing capacity offsite.

Access Road Construction:	Year 1
Crushing and Screening Spread Mobilization:	Year 1

Utilities Construction (if applicable):	Year 1
Mining	January – December, Each Year
Loading and Hauling Operations	January – December, Each Year
Interim Mining Closure:	December – March, Each Year

Phase I and II mining will commence in the first two years with concurrent reclamation occurring within areas considered inactive or completed, starting in the second year of mining. The expected start date of Phase III mining is Year 39. Similarly, Phase III reclamation will be concurrent in nature.

2.2.13. Environmental Protection Measures

Geofortis has prepared an Environmental Assessment (EA) for this project with the Bureau of Land Management (BLM) as the lead agency (DOI-BLM-NV-0020-2020-0026 EA). All environmental protection measures described in that document are adopted in this mining plan.

Water Quality

- Floodplains- The analysis for surface water resources includes floodplains. According to FEMA Map (Panel No. 06035C2800D), the project area is outside of 100-year floodplain areas.
- Riparian/Wetlands – No surface water resources have been identified. The Long Valley Creek does not flow immediately adjacent to the mining operation.
- Stormwater BMPs will be utilized at the mining operation to minimize the potential contamination of stormwater and to minimize runoff erosion from stormwater.
- Geofortis will follow the provisions of the Spill Contingency Plan provided in Appendix D.

Migratory Birds

Geofortis will comply with the Migratory Bird Treaty Act and avoid potential impacts to protected birds within the project area. A list of those protected bird species is provided in 50 CFR 10.13. When surface disturbances are created during avian breeding season (March 1 through August 31, may vary), a qualified biologist will survey the area prior to land clearing activities. If an active nest is observed within the project area, all construction activity will stop immediately in the vicinity of the nest and the BLM Biologist and County will be contacted. A protective buffer (size depending on the habitat of the species) will be delineated by the BLM, in coordination with other state and federal wildlife agencies. The area will be avoided to prevent the destruction or disturbance to nests until they are no longer active.

All infrastructure will be designed and constructed in a manner that does not allow open pipes that birds and other wildlife could be trapped in. This includes fencing, gates, or other materials with open holes. All pipes will be capped or secured so that wildlife cannot be confined. This will

not include culverts larger than 12-inches in diameter.

Cultural and Paleontological Resources

Efforts will be taken to preserve surface and subsurface cultural and paleontological resources that may be encountered within the project area. Any finds will be left intact and undisturbed and all work in the area will stop immediately and the BLM Archaeologist and County will be contacted. A Paleontological Resources Protection Plan (PRPP) will be prepared by a qualified paleontologist prior to ground disturbance and will be submitted to the County and BLM for approval.

- Pursuant to 43 CFR 10.4(g), Geofortis will notify the County and BLM authorized officers, by telephone, and with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2). Further pursuant to 43 CFR 10.4 (c) and (d), the operator will immediately stop all activities in the vicinity of the discovery and not commence again for 30 days or until notified to proceed by the County authorized officer.
- In the event that previously undiscovered cultural or paleontological resources (as defined in the PRPP) are discovered in the performance of any surface disturbing activities, the item(s) or condition(s) will be left intact and immediately brought to the attention of the authorized officer of the BLM. If significant cultural or paleontological resources are found, then all operations will be suspended in the immediate area of such discovery and protected until an evaluation of the discovery can be made by the authorized officer. This evaluation will determine the significance of the discovery and what mitigation measures are necessary to allow activities to proceed. Geofortis is responsible for the cost of evaluation and mitigation. Operations may resume only upon written authorization to proceed from the authorized officer of the County.
- Training program will be provided to all workers at the mine site.

Public Safety and Access

- Public safety will be maintained throughout the duration of the Project. All structures, equipment, and other facilities will be maintained in a safe and orderly manner.
- Hazardous sites or conditions resulting from operations will be marked by signs, fenced, or otherwise identified to alert the public in accordance with applicable Federal and state laws and regulations.
- Egress(es) to the mining operation will be adequately fenced and gated to preclude access.
- Any survey monuments, witness corners, or reference monuments will be protected to the extent economically and technically feasible.
- All solid wastes will be disposed of in a state, federal, or local designated site.
- Pursuant to 43 CFR 8365.1-1(b)(3), no sewage, petroleum products, or refuse will be dumped from any trailer or vehicle.

- Geofortis will comply with all applicable state and federal fire laws and regulations and all reasonable measures will be taken to prevent and suppress fires in the Project Area.

Air Quality

The mining operation is located within the California Air Basin No. 7, known as the Northeast Plateau Basin (Lassen County, 2000). According to Erik Edholm of Lassen County, the basin is currently in attainment for pollutants (June 2021).

The Lassen County Air Quality District is responsible for the permitting of projects with respect to air quality in the basin. County regulations require that fugitive dust be controlled and that an ongoing program to prevent particulate matter from becoming airborne be instituted.

Equipment associated with crushing and screening operations will be permitted through the Lassen County Air Quality District or CalEPA PERP. Emissions of fugitive dust from disturbed surfaces will be minimized by the application of water from a water truck as a method of dust control.

Noxious Weeds

The Federal Noxious Weed Act, Public Law 93-629 (7 U.S.C. 2801 et seq.; 88 Stat. 2148), enacted January 3, 1975, established a Federal program to control the spread of noxious weeds. Executive Order 13112 issued February 3, 1999 further defines the responsibilities of Federal Agencies to prevent the introduction of invasive species and provide for their control by minimizing the economic, ecological and human health impacts that invasive species cause. The approval of the proposed alternative for this project requires the proponent to comply with the Executive Order 13112 and prevent the spread or introduction of invasive species and noxious weeds.

Noxious weeds will be controlled through implementation of the following BMPs: concurrent reclamation efforts; operator control; removal of invasive, nonnative, and noxious weeds on reclaimed areas; washing heavy equipment prior to entering the Project Area; and avoiding areas of known invasive, nonnative, and noxious weeds during periods when the weeds could be spread by vehicles.

2.2.14. Land Disturbance

The Project Area has not been previously disturbed. Approximately 83 acres of land is proposed to be disturbed. Approximately 5 acres of land disturbance will be on public land within mining claim 159. No National Forest System or State lands will be impacted by the proposed Project. Temporary access will be limited and barriers will be installed if necessary.

3. Reclamation Plan

This section describes the measures to be taken to prevent unnecessary or undue degradation and the proposed activities for reclamation to be undertaken during and after completion of the mining operations.

Reclamation will be completed to the standards described in 43 CFR 3809.420 and NAC 519A. Reclamation will meet the reclamation objectives as outlined in the U.S. Department of Interior Solid Minerals Reclamation Handbook #H-3042-1 (BLM 1992), Surface Management Handbook H-3809-1 (BLM 2012), and California's Surface Mining and Reclamation Act of 1975 (SMARA 1975).

Disturbed areas will be reclaimed at the earliest feasible time, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site and off-site damage of the Federal lands. Reclamation will commence upon completion of each Phase of the Project. Upon completion of reclamation activities, an authorized officer of the BLM and the County will be notified so that an inspection of the area can be made.

3.1. Drill-Hole Plugging

Drill-holes may be used to explore the depth and distribution of pozzolan materials ahead of the moving wall mining operations. All drill-holes and mining activities will take place above the groundwater table. Drill-holes will be plugged by placing drill cuttings or inorganic fill material into the total depth of the hole. In the unlikely event that groundwater is encountered during drilling, the drill-hole will be cemented to at least 50 feet above the aquifer and will require a 3-foot cement surface plug.

3.2. Regrading and Reshaping

During mining and reclamation activities, Geofortis will implement best management practices (BMPs) to control erosion, landslides, and water runoff in accordance with a site-specific Stormwater Pollution Prevention Plan (SWPPP). Erosion and sedimentation of surface waters will be controlled through the use of weed-free straw wattles and/or silt fencing along the boundary of the facility and along steep slopes. These BMPs are designed to minimize the erosion of materials on the site and the transport of sediment off of the site. BMPs that may be used during this portion of the regrading include:

- Earth dikes and drainage swales- Earth dikes and drainage swales are used to divert off site runoff around the site, divert runoff from stabilized areas and disturbed areas, and direct runoff into sediment traps or basins.
- Velocity dissipation device- A physical device composed of rock, grouted riprap, or concrete rubble which is placed at the outlet of a pipe or channel to prevent scour or the soil caused by concentrated, high velocity flows.

- Slope Drains- Slope drains are used with earth dikes and drainage ditches to intercept and direct flow away from slope areas to protect cut or fill slopes.
- Non-vegetative stabilization- These materials are used for temporary or permanent stabilization of areas prone to erosion and should be used only where vegetative options are not feasible.
- Silt fence- A silt fence is made of woven geotextile that has been entrenched, attached to supporting poles, and sometimes backed by plastic or wire mesh for support. The silt fence detains sediment laden water, promoting sedimentation behind the fence.
- Sediment basin- A temporary basin formed by excavation or by constructing an embankment so that sediment-laden runoff is temporarily detained allowing sediment to settle out before runoff is discharged.
- Check dams- A small barrier constructed of rock, gravel bags, sandbags, fiber rolls, or other materials, placed across a construction swale or drainage ditch to control erosion and head-cutting.
- Fiber rolls- A fiber roll consist of straw, coir, or other biodegradable materials bound into a tight tubular roll wrapped by netting, which can be placed across a slope to capture sediment and reduce runoff velocity.

Other BMPs can be found in the California Stormwater Quality Association Construction Handbook.

Regrading and reshaping of all disturbed areas will be completed to approximate the surrounding topography. The reclaimed areas will be stable and will not exhibit large rills or gullies, perceptible soil movement or head cutting in drainages, slope instability on or adjacent to the reclaimed area. Fill material will be pulled onto the roadbeds to fill the road cuts and restore the slope to natural contours. Should any drainage be disturbed, they will be re-shaped to approach the pre-construction contours. The resulting channels will be of the same capacity as up and downstream reaches and will be made to prevent erosion and ultimately revegetated. Following completion of earthwork, all disturbed areas will be broadcast seeded.

3.3. Mine Reclamation

Geofortis will conduct concurrent reclamation on previously mined areas where possible to minimize the area of surface disturbance during the development of the Project from phase to phase. Reject materials will be placed over the open pit floor and limited stockpiled topsoil will be graded over the backfilled areas. There will be no highwalls in the Project Area. The reclaimed land will be contoured to satisfy post-mining land use to minimize views from US Highway 395.

The site will not be backfilled. The proposed mining plan will not result in any highwalls left after the mining is completed. The proposed mining cross section is 1.5:1 with 10-foot benches every

15 vertical feet. During reclamation, the benches will be smoothed with a resulting slope between 2:1 and 2.5:1. Due to the low rainfall levels and typical sparse vegetation, this configuration should be successful. The limited salvaged topsoil will be used in selected areas to enhance revegetation. This slope is stable in the material expected to be encountered and will not pose a significant safety risk. All proposed mining is above the water table and a pit lake is not expected to form.

Stormwater will either be routed around the mining operation or allowed to pass through the area with suitable hydraulic controls. In areas of high energy, riprap may be required to prevent erosion. In limited, select areas culverts may be necessary.

3.4. Riparian Mitigation

There are no surface water resources identified within the Project Area. Long Valley Creek does not flow immediately adjacent to the mining operation. Several ephemeral washes run through the Project Area. Phase I mining activities will approach the wash, but are not expected to divert, alter, or in any way disturb the wash. Phase II mining activities will disturb two tributaries to the wash, which will be diverted around the Project Area and back into the main wash. Phase III mining activities will significantly disturb three washes that merge into a single wash within the proposed Project Area. Geofortis proposes to construct a berm and channel to prevent stormwater from entering the Project Area.

3.5. Wildlife Habitat Mitigation

Migratory and upland game birds are present in the area, such as sparrows, swallows, dove, grouse, chukker, and quail. Raptors consist of owls and hawks. Mule deer, antelope, coyote, rabbit, skunk, and rodents inhabit the area. There are no known threatened or endangered species that inhabit the Project Area Boundary or within the vicinity. Should rare, threatened, or endangered species occur on or near the site, the Department of Fish and Game will be contacted.

Through successful revegetation utilizing a seed mix provided and approved by the BLM and Lassen County in Section 3.6, wildlife habitat will be restored and enhanced. Reclamation will meet the objectives as outlined in revegetation success standards per Attachment B "Nevada Guidelines for Successful Revegetation for the Nevada Division of Environmental Protection, the Bureau of Land Management and the U.S.D.A. Forest Service" September 1998.

The White Woolly Buckwheat (*Eriogonum ochrocephalum* var. *ochrocephalum*) was found on the site and the revegetation plan will address protections for this perennial herb. This plant forms a thick clump or mat covered in clusters of woolly lance-shaped to oval leaves. Wild buckwheat species are often important pioneer plants after natural disturbance, and their presence may facilitate the establishment of later-successional species according to the United States Department of Agriculture *Woody Plant Seed Manual*, 2008.

3.6. Topsoil Handling and Revegetation

Limited topsoil, selected subsoils, or other reject materials suitable as a growth medium will be salvaged from areas to be disturbed, stockpiled (with signs) initially near the Phase I and II access road and managed for later use in reclamation, and wherever feasible applied directly to recontoured areas ready for reclamation. As the mining progresses, stockpile locations will vary with the progression. Topsoil to be salvaged will be placed over the pit floor, ripped to relieve compaction, and seeded with an approved seed mix. The soils will be disked into compacted areas at varying depths. It should be noted that initial geologic surveys of the Project Area indicate that pozzolan materials are present at the surface for much of the area; therefore, the amount of salvageable growth medium will be minimal.

Two separate seeding programs are proposed. The general seeding program will be used throughout the reclamation area. This seed mix has already been approved by Lassen County and includes plants consistent with the surrounding conditions. A separate seeding program is proposed for the White Woolly Buckwheat for which Geofortis will collaborate with Lassen County as the requirements for seeding may evolve during the life of the project. General seeding will be performed as concurrent excavation and reclamation advancements develop from the top down and as each panel is completed. No straw or other cellulose will be used in conjunction with the seeding activities. The general seed mix was selected by the BLM and Lassen County to establish a plant community consistent with surrounding conditions to support post-mining land use. The seed mix will provide plant species that can survive in the environment of the Project Area, have been approved for revegetation, and are native species found in the plant communities prior to disturbance. General seeding will be applied at a rate of 31.5 pounds of pure live seed (PLS) per acre. Flat areas will be drill seeded and mulched, sloped areas will be hydroseeded and benches will be planted with trees and shrubs. Geofortis will develop a pocket planting contingency plan where hydroseeding is not successful. Ponderosa and/or Jeffrey pine trees will be placed at random 50-foot spacings, and shrubs including bitterbrush and sagebrush will be planted at 25-foot spacings on the benches. Modifications to the general seed mix, application rates and cultivation methods could occur as a result of adjustments incurred to the monitoring and concurrent reclamation plan. However, changes to the general seed mix must be developed in consultation with and approval by the BLM and Lassen County. The general seed mix will represent a reclaimed desired plant community and will be appropriate for each ecological site description identified by the BLM in the Project Area. A 25-foot X 25-foot test plot will be located on Iron Cloud No. 11 to test seed mixes, seed application rates, seed application techniques and soil amendments per the Surface Mining and Reclamation Act (SMARA) of 1975. A Test Plot Plan (TPP) will be developed by Geofortis with concurrence from the BLM and Lassen County. The TPP should be developed before revegetation starts, and revegetation should be conducted on a concurrent basis commencing on the second year of operation. The BLM will work with a revegetation review team on the content of the TPP prior to their concurrence with the TPP. General seeding activities will occur primarily in the fall but may also occur in the spring based on weather conditions, previous planting success, or the data collected from the test plots.

Limited stockpiles will be interim seeded with the approved seed mix. Appropriate BMPs such as hay bales, silt fences will be installed around the stockpiles, if necessary, to prevent surface run-on and runoff. Topsoil stockpiles will be identified and segregated on the ground. Upon completion of mining operations, the topsoil will be used during reclamation of the Project Area. The surface will be revegetated on a concurrent basis with activities commencing in the second year of operation to reduce further soil erosion.

Prior to ground disturbance on any portion of the project that has White Woolly Buckwheat, a project nursery will be established to allow for the transplant of all individual plants that may be impacted. Because of the tap-rooted habit, plants must be lifted carefully. Most species of wild-buckwheat are easily propagated in a nursery setting (Shaw, 1984).

During the life of the project, White Woolly Buckwheat seeds will be collected from plants not transplanted to the project nursery. Seed collection, cleaning and storage for collected natural seeds is presented in the *Woody Plant Seed Manual* prepared by the United States Department of Agriculture (USDA Manual, see Appendix D). This manual will be followed to maximize the collection of seeds from the native population.

Noxious Weeds Control Measures

Currently, no weed species listed by the BLM are located within the proposed disturbance areas. To prevent and control the introduction and spread of noxious weeds within the Project Area during construction, operation and reclamation activities, Geofortis will implement the following BMPs:

- Soil (growth media) disturbance will be minimized to the extent practicable, consistent with Project objectives. Growth media will be stockpiled and used in reclamation.
- All vehicles will stay on existing roads to and from the site. Any heavy equipment will have wheel wells, wheels and tires, bumpers, and undercarriage cleaned with high pressure water or air to remove any weed seeds prior to moving onto the site.
- Material used for reclamation will be free of weeds or weed seeds. All reclamation activities will be monitored for infestations of noxious weeds.
- Disturbed sites to be reclaimed will be revegetated as soon as practicable. Revegetation may include topsoil replacement, planting, seeding, fertilization, and weed-free mulching as necessary.
- The seed mixture will be certified pure live seed and weed free. Straw bales used for erosion control will also be certified as weed free.

Geofortis will survey the Project Area semi-annually for invasive weed species. If noxious weeds are encountered in the Project Area, documentation of their location and extent will be provided

to the BLM and County as soon as possible. If a limited amount of weeds are discovered, they will be pulled, placed in a plastic bag, sealed, and disposed of properly. For more intensive infestations, Geofortis will obtain approval from the BLM and County authorized officers prior to any herbicide application. Geofortis will contact the Sierra Front Field Office's noxious weed program lead regarding any issues concerning noxious weeds.

3.7. Isolation and Control of Acid-Forming, Toxic, or Deleterious Materials

The mining is not expected to produce significant volumes of waste material, so there are no proposed waste rock dumps. All undesirable materials (e.g., toxic subsoil, contaminated soil, drilling fluids, process residue, refuse, etc.) will be removed from the Project and disposed appropriately. There are no acid-forming materials located within the Project Boundary. Therefore, acid mine drainage controls are not a part of this Project.

Hazardous materials utilized at the Project Area will include diesel fuel, gasoline, and lubricants in conjunction with vehicle operations and maintenance. Routine vehicle maintenance including refueling will be done by mobile trucks. No permanent aboveground or belowground fuel tanks are proposed. Any containers of hazardous substances will be labeled and handled in accordance with CalEPA and MSHA. In the event that a reportable quantity of hazardous or regulated materials is spilled, measures will be taken to control the spill, and notifications will be made to the California State Warning Center, see Spill Contingency Plan (Appendix E).

3.8. Removal or Stabilization of Buildings, Structures, and Support Facilities

Upon completion of the Project, the mobile crushing and screening spread, and the mobile administration building will be removed from the facility. Portable restrooms, fencing, and gates will be removed from the Project Area. Powerlines, including all poles and cables, will be removed from the Project Area. Stormwater diversionary structures will remain in place. No other structures or support facilities will be located at the facility.

All equipment and supplies will be removed following the completion of the Project. Materials including scrap, trash, and unusable equipment will be removed on a daily or weekly basis and disposed of in accordance with federal and state regulations.

3.9. Post-Closure Management

Post-closure management will commence on any reclaimed area following completion of the reclamation work for the area. Post-closure management will extend until the reclamation of the site or component has been accepted by both the BLM and BMRR for approved post-closure land use. Management activities are further described in the Monitoring Plan (Section 4). Temporary structures such as stormflow diversionary berms or fencing may remain in place until reclamation is complete. For bonding purposes, a three-year post-closure management period is assumed following completion of reclamation construction on any site. For sites reclaimed early in the operations, management of the reclaimed sites will occur concurrently with operational site

management. Annual reports showing reclamation progress will be submitted to the BLM and BMRR.

3.10. Public Safety

No unnatural hazards will exist during or after reclamation in the disturbed/reclaimed areas.

4. Monitoring Plan

4.1. Monitoring Plan Requirements

Geofortis will perform site erosion monitoring for a period of five years after the completion of mining. This will include inspection and maintenance of any required stormwater BMP's quarterly for the first year of monitoring, and semi-annually for the remainder of the monitoring period. Any areas of erosion will be remediated at the time of the inspection and re-grading of the drainage area will be performed, after consultation with the County and BLM, if necessary. An annual report will be submitted to the County and BLM detailing the required inspections and maintenance activities performed.

Post reclamation monitoring will ensure disturbed surfaces are restored to pre-mining conditions. A five-year monitoring period is assumed but may be prolonged until reclamation is deemed complete by the County and BLM. Site monitoring inspections for stability and vegetative success will be conducted once a year, during the spring, for a minimum of five years. Pre-existing vegetative cover in the mine area was approximately 53 percent. Monitoring inspections will assess the successful establishment of the desirable species, vegetation reproduction processes, site stability and attainment of the revegetation goal. The release criteria will be considered satisfactory on establishment of 66 percent of the plantings and 75 percent of the seeding. The County and Geofortis will cooperate to inventory and monitor noxious weeds within areas of disturbance related to mining activities within the Project Area. Noxious weed infestations within the Project Area resulting from Geofortis ground disturbing activities will be promptly reported to the County. The extent of the infestation will be recorded and plotted on a map. Geofortis will treat any noxious weed infestations that result from ground disturbing activities within the Project Area for at least a five-year period following the completion of the Project. Treatments will be applied and recorded per BLM policy. The County, BLM and Geofortis will cooperate to monitor the effectiveness of treatments on noxious weeds.

Demonstrate Compliance with the Approved Plan of Operations and Other Federal and State Environmental Laws and Regulations

The proposed activities outlined in this Plan will be conducted under the County. In addition to this Plan, an Application for Surface Mining Permit and Reclamation (SMARA) Plan is being submitted to the Lassen County Planning Department, and coordination with the California Department of Conservation Office of Mine Reclamation and the State Mining Geology Board.

Provide Early Detection of Potential Problems

Monitoring will include periodic visual inspections during road construction, mining operations, and reclamation. In order to facilitate drainage and prevent erosion, all bladed roads will have waterbars constructed as specified in the BLM roads manual. BMPs for sediment control will be

utilized to minimize sedimentation from disturbed areas. Sediment control structures will include, but not be limited to, fabric and/or weed-free straw bale filter fences, siltation or filter berms, mud sumps, and downgradient drainage channels in order to prevent unnecessary or undue degradation to the environment.

If borehole drilling is performed, sediment traps will be constructed as necessary to ensure that the drill cuttings are contained and fluids are managed. Should the observed condition indicate that the sump containment is inadequate, additional sump capacity will be built and/or incorporated into the drilling fluid management system. Monitoring associated with reclamation activities is addressed in the Reclamation Plan (Section 3).

Supply Information That Will Assist in Directing Corrective Actions Should They Become Necessary

The activities outlined in the Reclamation Plan (Section 3) provide the necessary direction for corrective actions associated with the reclamation.

5. Interim Management Plan

During periods of temporary closure, including periods of seasonal closure, Geofortis will enact the following measures to prevent unnecessary or undue degradation in and around the Project Area. The Project is expected to be a year-round operation; however, mining and screening operations may operate on a seasonal schedule from April-November. Depending on market demands, operations and hauling may continue to occur between November and March.

The County and the BLM will be notified in writing within 90 days after work is suspended at the operation for more than 120 days. The Notice will state the nature and reason for the suspension of work, the anticipated duration of the suspension, and any event that will reasonably be expected to result in either the resumption of activities or the abandonment of the operation. Geofortis will not be required to notify the County nor the BLM or of temporary closure caused by weather conditions.

Geofortis will maintain a reclamation bond.

5.1. Measures to Stabilize Excavations and Workings

Areas being actively mined will be fenced off to limit access before temporary closure. Stockpiles are expected to be actively worked as loading and hauling operations continue on a year-round basis.

5.2. Measures to Isolate or Control Toxic or Deleterious Materials

There are no acid-forming materials located within the Project Boundary. Therefore, acid mine drainage controls are not a part of this Project.

All refuse generated by the project will be disposed of off-site at an authorized landfill facility, consistent with applicable regulations. No refuse will be disposed of on-site. Portable restrooms will be removed from the Project Area.

Hazardous materials utilized at the Project Area will include diesel fuel, gasoline, and lubricants in conjunction with vehicle operations and maintenance. Routine vehicle maintenance including refueling will be done by mobile trucks. No permanent aboveground or belowground fuel tanks are proposed. Any containers of hazardous substances will be labeled and handled in accordance with CalEPA and MSHA. In the event that a reportable quantity of hazardous or regulated materials is spilled, measures will be taken to control the spill, and notifications will be made to the California State Warning Center, see Spill Contingency Plan (Appendix D). No hazardous materials will be left on site during periods of temporary closure.

5.3. Provisions for the Storage or Removal of Equipment, Supplies, and Structures

Equipment associated with mining operations may be removed from the Project Area during periods of seasonal closure, including all vehicles such as excavators, dozers, and hauling vehicles. The crushing and screening spread and the mobile office will be moved off-site or secured safely

onsite during seasonal closures. All equipment will undergo regular maintenance prior to the seasonal closure of the Project Area.

5.4. Measures to Maintain the Project Area in a Safe and Clean Condition

The Project Area will be cleared of all waste, debris, and unused fuel and chemicals prior to seasonal closure. The mining operation will be adequately fenced and access gates will be locked.

5.5. Plans for Monitoring Site Conditions during Periods of Non-Operation

Geofortis will inspect the Project Area monthly during periods of non-operation, except as limited by weather and ground conditions.

5.6. Schedule of Anticipated Periods of Temporary Closure

Operations are expected to occur on a year-round basis; however, temporary closures may result from disruptions in the supply chain of products produced from the Lassenite. There is no way to anticipate or schedule such disruptions. Adverse weather conditions may curtail operations temporarily, but not for longer than a few days or weeks. Below freezing temperatures are experienced in Long Valley in the months from November-April, with an accompanying average annual snowfall in Long Valley is 20 inches. Geofortis will not be required to notify the County nor the BLM of temporary closure caused by weather conditions.

6. Reclamation Cost Estimate

6.1. Overview

Reclamation of the Project is designed to return the site to a safe, stable, and productive condition capable of supporting wildlife habitat, mineral exploration, livestock grazing, and recreation. The commitment to successfully completing this task is expressed in initial designs which facilitate ease of implementation of the Reclamation Plan, planned construction and reclamation design which minimizes surface disturbance and implementation of concurrent reclamation where appropriate. The reclamation cost estimate and bonding is regulated by Lassen County.

Geofortis will provide phased financial guarantees that cover only the current or proposed phase of the operation in accordance with 43 CFR 3809.553. The proposed mining operation will occur in three broad phases, each expected to develop over several years with small mobile equipment. The initial reclamation cost estimate assumes first year mobilization and construction of the access road to Phase I operations. The access road will be excavated through the ridge separating Highway 395 from the mining operation. The crushing and screening spread will be utilized during this excavation as much of the ridge is composed of pozzolan materials, which will be further processed off-site. This will minimize the amount of stockpiled materials to be regraded over the access road during reclamation. The proposed mining cross section is 1.5:1 with 10-foot benches every 15 vertical feet. During reclamation, the benches will be smoothed with a resulting slope between 2:1 and 2.5:1, with limited salvaged topsoil to enhance revegetation. Due to the low rainfall levels and typical sparse vegetation, this configuration should be successful. This slope is stable in the material expected to be encountered and will not pose a significant safety risk. The stormwater culvert will remain in place. There are no other structures, utilities, or fences associated with this cost. See Appendix B.

6.2. Equipment Mobilization/Demobilization

Project site reclamation equipment could be mobilized from and demobilized to Reno, Susanville, or Sacramento pending on the availability of equipment, pricing, and accessibility. Mobilized equipment will consist of an earthmoving fleet and seeding equipment for reclamation of disturbed areas. *Labor Surcharge and Equipment Rental Rates* as published by the State of California, Department of Transportation, Division of Construction, effective April 1, 2020 through March 31, 2021 were used for equipment costs.

6.3. Agency Administrative/Management

All activities, including reclamation, will be supervised by the County. The lead agency is Lassen County.

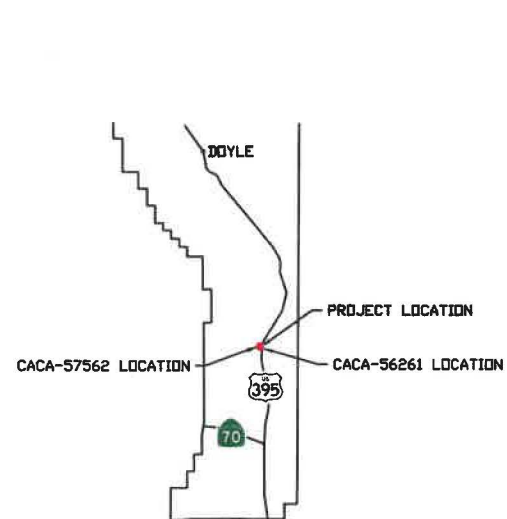
6.4. Equipment Operating Rates and Costs

The reclamation cost estimate was prepared using the State of California, Department of Conservation, Division of Mine Reclamation Financial Assurance Cost Estimate (FACE) form. *Labor Surcharge and Equipment Rental Rates* as published by the State of California, Department of Transportation, Division of Construction, effective April 1, 2021 through March 31, 2022 were used for labor and equipment costs. Some equipment costs not found in this document were estimated using the RS Means Construction Site Online Cost estimating tool.

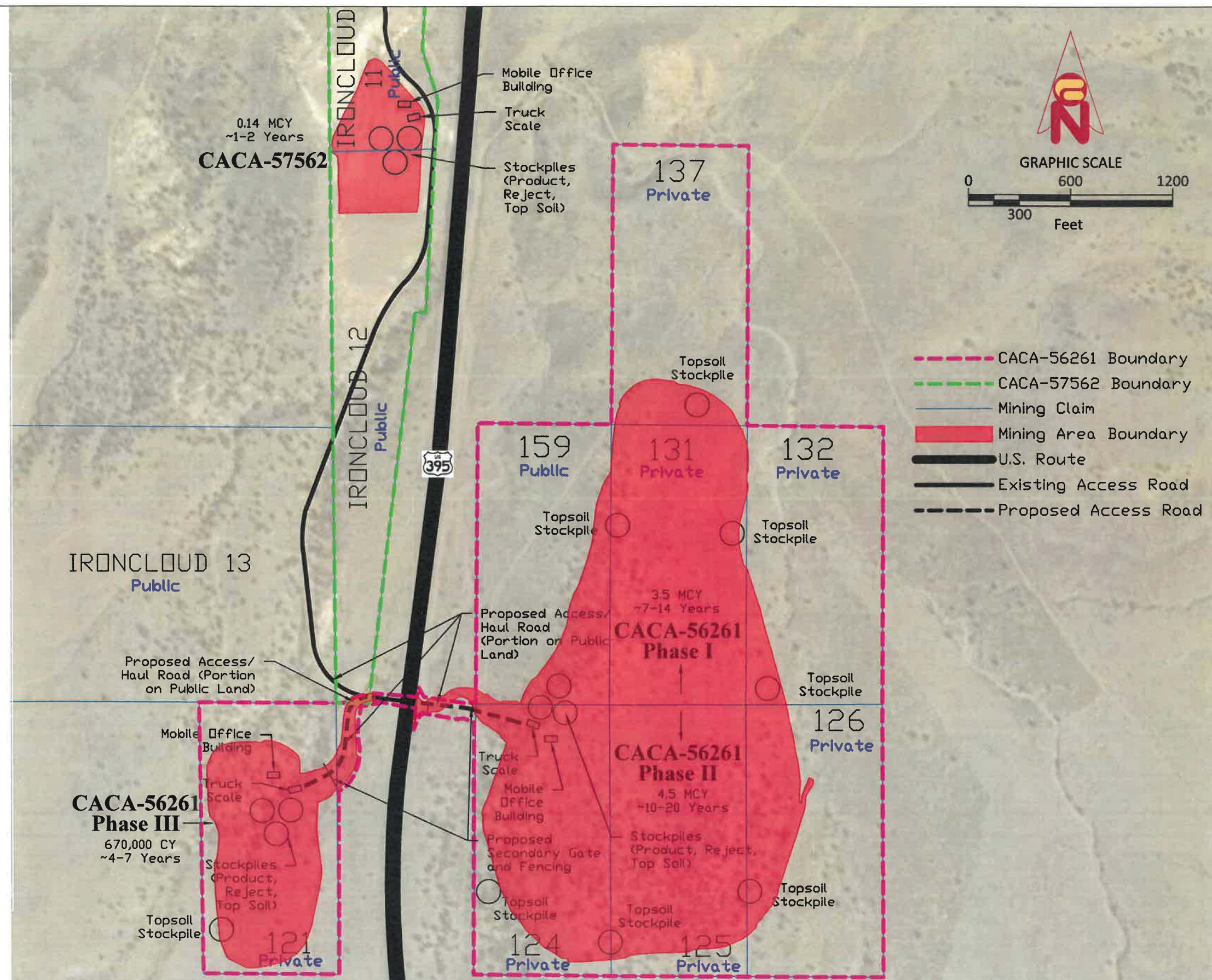
Appendix A: Figures



STATE MAP



VICINITY MAP

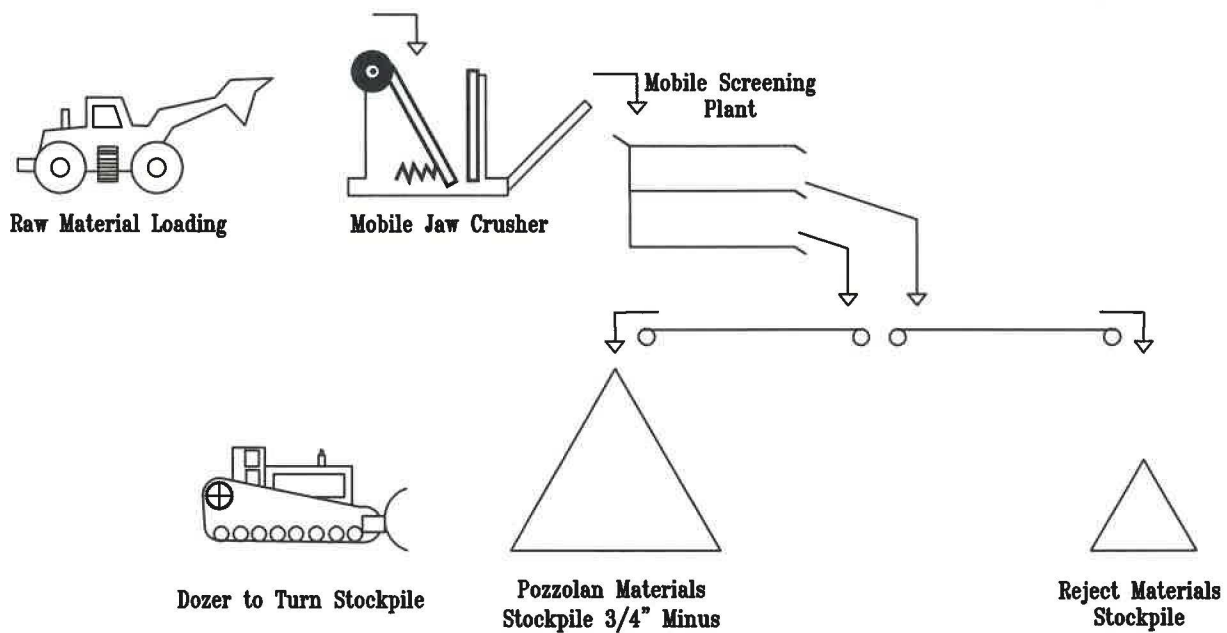


Geofortis Minerals, LLC
30 S. Tooele Blvd
Tooele, UT 84074

Project Number:
14-01-173-701

Prepared By: C. Carrier
Reviewed By: L. Roy
Date: 9/14/2015

Figure 1:
Project Area Boundary



Prepared by: CAC Approved by: LCR Date: 6/19/15

Process Flow Diagram
 Cal Minerals, Inc.
 1024 Country Club Drive
 Moraga, California 94556
 Project No. 14-01-173-701

Figure

2



SCALE: 1"=200'
(for 11"x17" sheet size)

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
EAST MINE - PHASE 1 VOLUME	1.000	1.000	1501580.12 Sq. Ft.	3452941.96 Cu. Yd.	1617.98 Cu. Yd.	3451323.98 Cu. Yd.<Cut>
EAST MINE - PHASE 2 VOLUME	1.000	1.000	1521346.39 Sq. Ft.	4490830.92 Cu. Yd.	100.73 Cu. Yd.	4490730.19 Cu. Yd.<Cut>
Totals			3022926.51 Sq. Ft.	7943772.88 Cu. Yd.	1718.71 Cu. Yd.	7942054.17 Cu. Yd.<Cut>

PHASE 2 PHASE 1

GEOFORTIS CLAIMS 121, 124-126, 131-132, 137, 159

GEOFORTIS MINERALS, LLC

SCALE: 1"=200'

JOB #:

DESIGNED BY: CAC

Copyright Broadbent & Associates, Inc. 2021

MINE PLAN PHASE I AND II

DATE: 10 December 2021 2:35:54 PM

DRAWING PATH: Z:\JOBS\2014\14-01-173 Phase II CAL Minerals\Phase IV - PoO Parcels\Drawing\CalMin_MineBase_Broadbent_Edits_9-30-21.dwg

SHEET 1 OF 2

FIGURE 3



SCALE: 1"=100'
(for 11"x17" sheet size)

DIVERSION CHANNEL
FINAL SIZE & SHAPE TO
BE DETERMINED WITH
HYDROLOGY REPORT

PHASE 3

CAL MIN CLAIM #121

35' WIDE HAUL ROAD

DIVERSION BERM
FINAL SIZE & SHAPE TO
BE DETERMINED WITH
HYDROLOGY REPORT

CAL MIN CLAIM #122

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
WEST MINE - PHASE 3 VOLUME	1.000	1.000	587300.03 Sq. Ft.	673515.99 Cu. Yd.	1003.17 Cu. Yd.	672512.82 Cu. Yd.<Cut>
Totals			587300.03 Sq. Ft.	673515.99 Cu. Yd.	1003.17 Cu. Yd.	672512.82 Cu. Yd.<Cut>

GEOFORTIS CLAIMS 121, 124-126, 131-132, 137, 159

GEOFORTIS MINERALS, LLC	SCALE: 1"=100'	JOB #:	DESIGNED BY: CAC
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MINE PLAN PHASE III

DATE: 10 December 2021 2:37:11 PM	SHEET 2 OF 2
DRAWING PATH: Z:\JOBS\2014\14-01-173 Phase II CAL Minerals\Phase IV - PoO Parcels\Drawing\CalMin_MineBase_Broadbent_Edits_5-30-22.dwg	FIGURE 4

Appendix B: Cost Estimate

FACE Backup for Initial Phase of CAL MIN claims

Labor Rates

General landscape labor rates were estimated from the California Department of Industrial Relations NC-23-102-1-2020-2 issued August 22, 2020 and good until June 27, 2021. For Area 2 (Lassen County) and Group 7, Stage 1 (Entry Level Landscape) total hourly rate was \$48.58 and Area 2 (Lassen County) and Group 7, Stage 3, total hourly rate was \$55.09 for supervision.

Equipment operation on site labor rates (motor grader, excavator, etc.) were estimated from the California Department of Labor Relations NC-63-3-75-2020-1 issued August 22, 2020 and good until June 27, 2021. For Area 1 (Lassen County) and Group 1 (Landscape Finish Operator regardless of HP) total hourly rate was \$70.73. For Area 1 (Lassen County) and Group 3 (small tractor) total hourly rate was \$62.52.

Delivery of equipment to the site, labor rates were estimated from the California Department of Labor Relations NC-23-261-2020-1 issued August 22, 2020 and good until June 30, 2021. For all locations Group 4 (Lowboy up to and including 7 axles) the total hourly labor rate was \$65.27.

Equipment Rates

All equipment rates come from the State of California, California State Transportation Agency, Department of Transportation, Division of Construction, *Labor Surcharge and Equipment Rental Rates*, effective April 1, 2021 through March 31, 2022.

Heavy Tractor, Caterpillar 814	\$103.98
Tractor, Rubber tire with backhoe, code C	\$ 36.50
Motor Grader, Caterpillar 14H	\$122.82
Trailer, Low Bed 8 tires per axle for equipment	
Delivery	\$40.86
Truck, 27216 for equipment delivery	\$65.72 (Total 106.58 for truck and trailer)

Work to be done

The first phase of the CAL MIN claims is to construct the roadway from Highway 395 to the floor of the proposed Phase I and II mining operations. This project area is approximately 600 feet long and would cut through the existing ridge. It is estimated the disturbed area would be 75 feet wide near Highway 395 and 320 feet wide on the eastern terminus of the road. The cut would be approximately 30 to 50 feet deep. For reclamation purposes it is estimated that the disturbed area is 4 acres. Small trees will be planted at random 50 foot spacings on the slopes along with small shrubs at random 25 foot spacings on the slopes. The slope areas are estimated at 2 acres (approximately 87,000 square feet).

- Estimated that 35 trees and 140 shrubs would be required for the revegetation.
- Estimated 4 acres of seeding.
- Estimated 16 hours of motor grader for recontour.
- Estimated 8 hours of heavy tractor for grading.
- Estimated 16 hours of small tractor for planting.
- Estimated 1 hour of labor per tree and .5 hour per shrub.
- Estimated 6 hours for each piece of equipment mob and demob.
- Estimated 16 hours labor to broadcast seed and cover.
- Estimated extra 24 labor hours for revegetation.
- Estimated 24 hours of supervision on labor for revegetation.

**BETA Excel Version of the FACE-1 Financial Assurance Cost Estimate Form.
Please contact DMR if errors are found in this document.**

FINANCIAL ASSURANCE COST ESTIMATE FOR

CAL MIN Claims

(Mine Name)

CA Mine ID # 91- _____

Reclamation Plan #/Name _____

Prepared by: *(Name & Affiliation)*

Lonnie Roy

Broadbent & Associates, Inc.

8 West Pacific Avenue, Henderson, NV 89015

Date: June 18, 2021

This financial assurance cost estimate prepared and submitted pursuant to *(choose one)*:

☒ A new or amended reclamation plan approved on (Date): DRAFT

☐ An annual mine inspection performed on (Date): _____

☐ Other: Please Specify: _____

Most Recent Approved Financial Assurance Cost Estimate

Date: None

Amount: \$

Amount of existing Financial Assurance Mechanism(s)

Date: None

Amount: \$

I. SUPPORTING DOCUMENTS

This estimate represents the cost of conducting and completing reclamation in accordance with the Surface Mining and Reclamation Act (SMARA) and the following supporting documents:

Reclamation Plan Approval Date and Number

- ☒ The reclamation plan has not been approved as of this date.

Permits and/or Environmental Documents Approved as, or Conditional upon, the Reclamation Plan

- ☒ An Environmental Assessment has been prepared and approved by the Bureau of Land Management (DOI-BLN-NV-C020-2020-0026EA). A Mining Plan and application have been submitted to Lassen County (Mining Plan for SMARA Application, Geofortis Minerals, LLC, Cal Min Claims 121,124-126,131-132,137,159, June 2021).

Other Agency Financial Assurances Securing Reclamation of Disturbed Lands



Wage Rates used in Cost Estimate* *(cost estimates are required to use current 'General prevailing wage determinations made by the director of industrial relations' where applicable (<http://www.dir.ca.gov/OPRL/PWD/index.htm>) with employer labor surcharge added, or greater)*

- ☒ Prevailing wage rates by California Department of Industrial Relations as provided on the website as of June 2021.

Equipment Rates used in Cost Estimates* *(use current 'Labor Surcharge and Equipment Rental Rates (Cost of Equipment Ownership)' equipment rates published by Caltrans (<http://www.dot.ca.gov/hq/construc/equipmnt.html>) or other publicly available and verifiable local rates)*

- ☒ California Department of Transportation, Division of Construction, *Labor Surcharge and Equipment Rental Rates*, effective April 1, 2021 through March 31, 2022.

Equipment Production Rates used in Cost Estimate *(Use of current Caterpillar Performance Handbook or equivalent published production rates is required)*

- ☒ Caterpillar Performance Handbook and past experience. This is a small job.

**Many mine sites are remote projects that require hours of travel (to and from) and sometimes require additional time to prepare for even the simplest of tasks. In accordance with labor Code Sections 1773.1 and 1773.9, contractors are required to make travel and/or subsistence (per diem) payments to each worker to execute the work. These arrangements can be quite variable and site specific.*

Attachments:

- ☒ FACE Backup for Initial Phase of CAL MIN claims.

II. Description of Current Site Conditions

(i.e., disturbed acres, slope conditions, excavation depths, topsoil and overburden stockpiles, equipment and facilities, reclamation in progress, erosion control status, required corrective actions, etc.)

✎ The site has not been disturbed. General vegetation typical of the area prevails. The initial phase of this project will be the construction of the access road and disturbed area will be approximately 4 acres. The access road will be 600 feet long and 35 feet wide and will pass through a ridge approximately 30 to 50 feet high. The site is adjacent to Highway 395 in Lassen County, California.

III. Description of Anticipated Site Conditions (12 months from date of estimate)

(i.e., increase of disturbed acres, increase of depth, increases in amount of equipment and/or facilities, required corrective actions, etc.)

✎ The access road way will be completed to the Phase I/ Phase II boundary where mining will commence. The roadway will not be paved. The slope of the adjacent land will be 1.5 to 1, with 10 foot wide benches every 15 vertical feet. The cut is 30 to 50 feet in elevation.

IV. Description/Justification of Cost Increase/Decrease

✎ This is the initial estimate.

VI. PRIMARY RECLAMATION ACTIVITY

Use multiple sheets as necessary to estimate the cost of each activity required. Provide documentation showing that rates, prices, and wages are available locally to the lead agency and/or the Department if necessary.

Current Site Conditions:

✎ The site has not been disturbed. General vegetation typical of the area prevails. The initial phase of this project will be the construction of the access road and disturbed area will be approximately 4 acres. The access road will be 600 feet long and 35 feet wide and will pass through a ridge approximately 30 to 50 feet high. The site is adjacent to Highway 395 in Lassen County, California.

Reclamation Plan Performance Standard (End Use):

✎ The site will be reclaimed as wildlife habitat. The final reclamation is to match the adjacent lands.

Describe tasks, methods, equipment, etc:

Decompaction, cut, fill, haul, slope reduction, compaction, grading, topsoil placement, drainage work, soil amendment, special requirements, etc. Separate sheets may be used for each task if necessary.

✎ The constructed slopes and benches will be recountoured to a final slope of 2.0-2.5 to one and graded to minimize erosion. This work will be done with a large tractor (CAT 814) and a medium motor grader (CAT 14H). Limited stockpiled top soil will be distributed to enhance revegetation, though this will be a minor component of the reclamation.

Provide Quantities:

Overburden and topsoil, cut and fill, import or export (cubic yards), area (acres), haul distance (feet), equipment production rates (cubic yards/hour, or as applicable), etc.

✎ The total area disturbed is less than 4 acres. It is estimated that the top soil stockpiled will be less than 20 cubic yards.

Since the area is so small (3-4 acres), it is estimated that 16 hours of motor grader, 8 hours of heavy tractor will be needed for the recontour.

6 hours of equipment delivery time for mob/demob.

VI. PRIMARY RECLAMATION ACTIVITY

(↑ Describe Reclamation Activity Being Estimated)

Acres:	4.0	Overburden (cy):	
Haul Distance (ft):		Topsoil (cy):	less than 20
Production Rate (cy/hr):		(NOTE: no automatic calculations occur to data in this upper table)	

Methods to be used:

A. Equipment - List equipment to complete identified task. For large reclamation jobs, separate mine areas.

Equipment	Unit of Measure	\$/Unit	# of Units	Cost (\$)
CAT14 H Motor Grader	HR	\$122.82	16.0	\$1,965
CAT 814 Heavy Tractor	HR	\$103.98	8.0	\$832
Truck and Trailer Lowboy for Mod/Demob	HR	\$106.58	12.0	\$1,279
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0

Total Equipment Cost for this Task = \$4,076

B. Labor - List all labor categories to complete identified tasks

Labor Category	\$/Hour (prevailing wage)	Labor Surcharge/Hr (where applicable) (enter % of wage)	# of Hours	Cost (\$)
		0.0%		
Teamster for Lowboy , All locations Group 4	\$65.27	\$0.00	12.0	\$783
Operator for Motor Grader and Heavy Tractor, Area 1, Group 1	\$70.73	\$0.00	22.0	\$1,556
Landscape Labor, Group 7, Stage 2	\$51.83	\$0.00	0.0	\$0
	\$0.00	\$0.00	0.0	\$0
	\$0.00	\$0.00	0.0	\$0
	\$0.00	\$0.00	0.0	\$0

Total Labor Cost for this Task = \$2,339

C. Materials - List all materials required to complete identified task

Item	\$/Unit	Sales tax (enter local rate in %)	Quantity	Cost (\$)
		0.0%		
	\$0.00	\$0.00	4.0	\$0
	\$0.00	\$0.00	35.0	\$0
	\$0.00	\$0.00	140.0	\$0
	\$0.00	\$0.00	0.0	\$0
	\$0.00	\$0.00	0.0	\$0

Total Materials Cost for this Task = \$0

D. Total Direct Cost for this task

Equipment Cost + Labor Cost + Materials Cost = \$6,415

VII. REVEGETATION (use multiple sheets as needed)

(↑ Describe Revegetation Activity Being Estimated)

Methods to be used:

A. Equipment - List equipment to complete identified task. For large reclamation projects, separate mine areas.

Equipment	Unit of Measure	\$/Unit	# of Units	Cost (\$)
Farm Tactor, over 50 HP with backhoe (rate C)	HR	\$36.30	16.0	\$581
Truck and Trailer Lowboy for Mob/Demob	HR	\$106.58	6.0	\$639
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
		\$0.00	0.0	\$0
Total Equipment Cost for this Task =				\$1,220

B. Labor - List all labor categories to complete identified task.

Labor Category	\$/Hour (prevailing wage)	Labor Surcharge /HR (where applicable) (enter % of wage)	# of Hours	Cost (\$)
		0.0%		
Landscape Labor, Group 7, Stage 1	\$48.58	\$0.00	145.0	\$7,044
Landscape Labor, Group 7, Stage 3	\$55.09	\$0.00	24.0	\$1,322
Operator Tractor, Operating Engineer, Area 1, Group 3	\$62.52	\$0.00	16.0	\$1,000
Teamster for Lowboy, All locations Group 4	\$65.27	\$0.00	6.0	\$392
	\$0.00	\$0.00	0.0	\$0
Total Labor Cost for this Task =				\$9,758

C. Materials - List all materials required to complete identified task

Item/Plant Species	Unit of measure	\$/Unit	Sales tax (enter local rate in %)	Quantity	Cost (\$)
			0.0%		
Seed from D&H Seed (31.5 lbs/acre)	Acre	\$1,096.50	\$8.20	4.0	\$4,419
15 Gallon Trees (Moana Nursery Quote)	Each	\$186.00	\$8.20	35.0	\$6,797
5 Gallon Shrubs (Moana Nursery Quote)	Each	\$35.21	\$8.20	140.0	\$6,077
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
		\$0.00	\$0.00	0.0	\$0
Total Materials Cost for this Task =					\$17,293

D. Total Direct Cost for this task

Equipment Cost + Labor Cost + Materials Cost = \$28,272

X. SUMMARY OF COSTS

This section shall be used to summarize all the cost sheets in one place.

(V) Total of all Plant Structures & Equipment Removal Costs	\$	0
(VI) Total of all Primary Reclamation Activities Costs	\$	6,415
(VII) Total of all Revegetation Costs	\$	28,272
(VII) Total of all Miscellaneous Costs	\$	0
(IX) Total of all Monitoring Costs	\$	0
Total of Direct Costs		\$ 34,687

XI. SUPERVISION / PROFIT & OVERHEAD / CONTINGENCIES / MOBILIZATION

(A) Supervision (6.5	%)	\$	2,243
(B) Profit/Overhead (13.5	%)	\$	4,692
(C) Contingencies (10.0	%)	\$	3,469
(D) Mobilization (5.0	%)	\$	1,734
Total of Indirect Costs			\$	12,138
Total of Direct and Indirect Costs			\$	46,825
(E) Lead Agency and/or Dept. of Conservation Administrative Costs	15%		\$	7,024
Total Estimated Cost of Reclamation			\$	53,849

Appendix C: Claim Information

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0114
Expires: October 31, 2016

NOTICE OF INTENT TO LOCATE A LODE OR PLACER MINING CLAIM(S)
AND/OR A TUNNEL SITE(S)
ON LANDS PATENTED UNDER THE STOCK RAISING HOMESTEAD ACT OF 1916,
AS AMENDED BY THE ACT OF APRIL 16, 1993

Homestead Patent Number

TO ALL WHOM IT MAY CONCERN:

This notice is filed under Public Law No. 103-23 of April 16, 1993 (107 Stat. 60), entitled "An Act to amend the Stock Raising Homestead Act to resolve certain problems regarding subsurface estates, and for other purposes." The undersigned places all interested parties on notice that, within 90 days of filing this notice with the Bureau of Land Management (BLM) and after 30 days from the date of receipt of a copy of this notice by the surface owner(s) of a record, the undersigned intends to enter the lands described below to explore for a valuable mineral deposit(s) and to locate a mining claim(s), and/or tunnel site(s), as provided under the mining laws of the United States (30 U.S.C. 22, et seq.). The area covered by this notice and all other notices filed by the undersigned and any affiliate(s) of the undersigned, and which continue to be in effect on the date of this filing does not exceed 6,400 acres of such land in any one State and 1,280 acres of such land for a single entity. This notice, for a single State and surface of ownership, covers the following lands:

1/4	SECTION	TOWNSHIP	RANGE	MERIDIAN
E 1/2 of SE 1/4	11	23N	17E	Mt Diablo
NE 1/4 of NW 1/4	14	23N	17E	Mt Diablo
N 1/2 of NE 1/4	14	23N	17E	Ni Diablo

in Lassen County, State of California

Total acres under this notice 180

Name and mailing address of affected surface owner(s):

Sayed Arif and Sayeda Rehana Begum

1705 Astor Ave

Oak Brook Terrace, IL 60181

Phone - 630-792-6801

Name and mailing address of person filing this notice:

Cal Minerals, Inc.

1024 Country Club Dr.

Moraga CA 94556

Brief description of the proposed casual use exploration activities (i.e., activities that cause no more than a minimal disturbance to the surface resources and do not involve the use of mechanized earth-moving equipment, explosives, the construction of access roads, drill pads, or the use of toxic or hazardous materials):

Drilling core borings with track mounted rig. no drill pads or roads will be constructed. Drilling to occur on or around May 17, 2015.



Date(s) on which such activities will take place: May 17-30, 2015

(Continued on page 2)

Attached is a map showing the existing access routes proposed to be used for casual use exploration purposes, primary areas of interest, and types of activities to be conducted.

The above described activities will be managed by:

Name Cal Minerals - David McMurtry

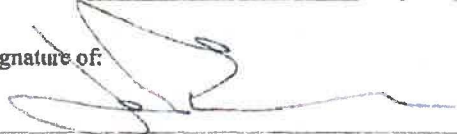
Mailing Address 1024 Country Club Dr

Moraga, CA 9456

Phone Number (include area code) 925-348-3535

Dated this 17th day of April, 20 15.

Signature of:



(Person)

Cal Minerals, Inc.

(Affiliate)

18 U.S.C. 1001 and 43 U.S.C. 1212 make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECORDER'S STAMP

NOTICES

The Privacy Act and 43 CFR 2.48(d) require that you be furnished with the following information in connection with the information requested by this form.

AUTHORITY: 43 U.S.C. 299(b) and 43 CFR subpart 3814 and part 3838 permit collection of the information requested by this form.

PRINCIPAL PURPOSE: The BLM will use the information you provide to verify that you have complied with the pre-location requirements at 43 U.S.C. 299(b) and 43 CFR subpart 3814 and part 3838, and are therefore qualified to locate and record mining claims on land patented under the Stock Raising Homestead Act.

ROUTINE USES: The BLM will only disclose this information in accordance with the provisions at 43 CFR 2.56(b) and (c).

EFFECT OF NOT PROVIDING INFORMATION: Disclosure of the requested information is required by 43 U.S.C. 299(b) and 43 CFR subpart 3814 and part 3838 for mining claimants who desire to locate a mining claim or tunnel site on land previously patented under the Stock Raising Homestead Act. Failure to comply and submit all the requested information or to complete this form will delay the BLM's processing of the form or may preclude the BLM's acceptance of your notice of intent to locate (NOITL) a mining claim or site on lands patented under the Stock Raising Homestead Act. Failure to comply with the requirements of 43 U.S.C. 299(b) and 43 CFR subpart 3814 and part 3838 will void your NOITL. Mining claims or sites located under a void NOITL are null and void from the beginning and will be cancelled by the BLM.

The Paperwork Reduction Act requires us to tell you that:

The BLM collects this information to determine whether or not you are qualified to locate a lode or placer mining claim and/or tunnel site on lands patented under the Stock Raising Homestead Act.

Submission of the requested information is necessary to obtain or retain a benefit.

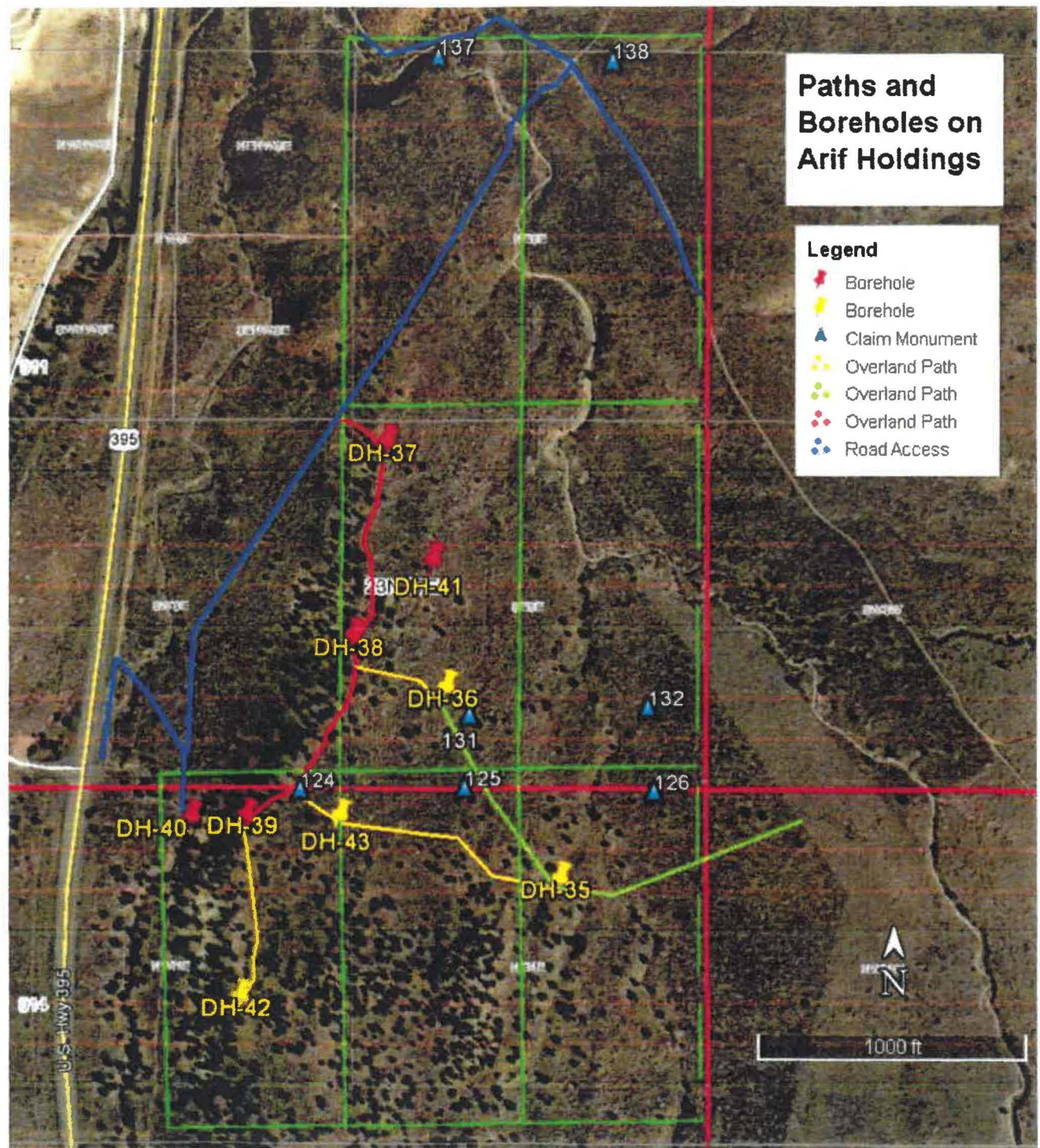
You do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. You may submit comments regarding the burden estimate or any other aspect of this form to: U.S. Department of the Interior, Bureau of Land Management (1004-0114), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240.



(Form 3830-3, page 2)

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U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only		
For delivery information, visit our website at www.usps.com ®.		
VILLA PARK, IL 60181		
Postage	\$ 5.75	0206
Certified Fee	\$3.30	06
Return Receipt Fee (Endorsement Required)	\$2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 11.75	04/17/2015
Sent to: Sayeck Arif		
Street & Apt. No. or PO Box No. 1705 Astor Ave		
City, State, ZIP+4 Villa Park, IL 60181		
PS Form 3800, July 2014 See Reverse for Instructions		



United States Department of the Interior
Bureau of Land Management
 DIV OF SUPPORT SERVICES
 2800 COTTAGE WAY, RM W1623
 SACRAMENTO, CA 95825
 Phone: 916-978-4400

Receipt

No: 3277114

Transaction #: 3372894

Date of Transaction: 04/20/2015

CUSTOMER:

CAL MINERALS INC
 1024 COUNTRY CLUB DR
 MORAGA, CA 94556-1900 US

LINE #	QTY	DESCRIPTION	REMARKS	UNIT PRICE	TOTAL
1	1.00	LOCATABLE MINERALS / SRHE-EARNED & ADJUDICATED / NOIL - SRHE CASES: CACA 056029/\$30.00		- n/a -	30.00
TOTAL:					\$30.00

PAYMENT INFORMATION

NOTE: Items will appear on credit card statement as "Bureau of Land Mgmt CO".

1	AMOUNT:	30.00	POSTMARKED:	N/A
	TYPE:	CREDIT CARD	RECEIVED:	04/20/2015
	NAME:	CAL MINERALS INC 1024 COUNTRY CLUB DR MORAGA CA 94556-1900 US		
	CARD NO:	XXXXXXXXXXXX7112	AUTH CODE:	03921G
	NAME ON CARD:	MCMURTRY/DAVID		
	EXPIRES:	04/2017		
	SIGNATURE:			

REMARKS

This receipt was generated by the automated BLM Collections and Billing System and is a paper representation of a portion of the official electronic record contained therein.

Appendix D: Spill Contingency Plan

Geofortis Claims CAL MIN 121, 124-126, 131-132, 137, 159

Lassen County, Nevada

Spill Contingency Plan

Objectives

The purpose of this Spill Contingency Plan is as follows:

- Identify potential pollution sources within the Project Area
- Describe discharge controls and prevention measures
- Establish spill response and reporting procedures

Pollution Sources

Hazardous materials such as diesel fuel, gasoline, chemicals, and lubricants are expected to be used in the Project Area. Several areas are maintained where oil, oil-related products, and chemicals are stored, used, or handled. A summary of all potential pollution sources is described below and their locations are identified in Drawing 1.

Area 1 – Mobile Service Vehicle

Geofortis may utilize a diesel refueling vehicle to service excavators, dozers, and other equipment at various mining operations. The refueling vehicle may also carry various lubricating oils in small containers for servicing equipment. When non in use, the refueling vehicle will be parked near the egress to the Project Area. Prior to and after operation of the refueling vehicle, the operator will inspect all valves to ensure they are in the closed position and will inspect the immediate area for any signs of leaks or spills. The refueling vehicle carries spill kits and absorbents in case of small spills or leaks.

In the unlikely event that fuel is released, the material would be absorbed in the immediate area. Pozzolan is an excellent absorbent, which has been one of its historical marketed uses. Project personnel will contain spills with available spill response kits and absorbents or with available pozzolan material stockpiled near the egress to the Project Area. The potential for off-site discharge is very low.

Area 2 – Generators

The crushing and screening spread will be powered by a portable diesel generator(s). The generator is equipped with an integral double-walled diesel fuel tank.

In the unlikely event that fuel is released, the material would be absorbed in the immediate area. Pozzolan is an excellent absorbent, which has been one of its historical marketed uses. Project personnel will contain spills with available spill response kits and absorbents or with available pozzolan material stockpiled near the egress to the facility. The potential for off-site discharge is very low.

Area 3 – Transformers

Geofortis may alternatively operate the crushing and screening spread with grid power stemming from a power line located approximately 0.5 miles north of the access road. Plumas Sierra Rural Electrical Cooperative (PSREC) will provide an on-site electrical transformer to service the operation. The transformer will be equipped with an integral mineral oil tank.

In the unlikely event that mineral oil is released, the material would be absorbed in the immediate area. Pozzolan is an excellent absorbent, which has been one of its historical marketed uses. PSREC will be called to repair the transformer and neutralize the power line if a hazard exists. If safe to do so, project personnel will contain spills with available spill response kits and absorbents or with available pozzolan material stockpiled near the access road. The potential for off-site discharge is very low.

Location	Size of Container	Aboveground/ Underground	Product Stored	Material	Containment or Controls
Area 1 – Mobile Service Vehicle	250-gallon tank	Aboveground	Diesel Fuel and Lubricants	Steel tank and small containers	Double-walled
Area 2 – Generators	500-gallon tank	Aboveground	Diesel Fuel	Steel Tank	Double-walled
Area 3 – Transformers	250-gallon tank	Aboveground	Mineral Oil	Steel Tank	Secondary Containment

Discharge Controls and Prevention Measures

All containers are made of material suitable for holding their contents. Each container is equipped with appropriate secondary containment. Each container is properly labeled and properly sealed when not in use. Each storage location is inspected at the beginning of each work day for signs of spills or leaks.

Spill kits and absorbents will be made available to contain and clean up any leaks and spills. Used absorbents and any contaminated soil will be properly disposed of.

Each employee is responsible for recognizing the potential for an occurrence of any spill, containment and cleanup procedures, and reporting requirements. The training of oil-handling employees will address the following topics:

- General facility operations;
- Operation and maintenance of equipment to prevent discharges;
- Spill containment and cleanup procedures;
- Reporting procedures; and
- Applicable pollution control laws, rules, and regulations.

Spill Response and Reporting Procedures

In the event of a spill, the following procedures will be followed:

a) Release < 25 gallons and /or < 3 yd3 of soil impacted

1. Stop spill at source, if possible, by closing valves, turning off pipes, plugging leaks, etc.
2. Contain releases through berming or other appropriate method;
3. Cover release with absorbents; and
4. Dispose of absorbent in waste receptacle, which will be sent to a landfill or to an appropriate treatment facility.
5. The Facility Response Coordinator (Site Manager) will coordinate all necessary notifications;

b) Release > 25 gallons and/or > 3 yd³ of soil impacted

1. Stop spill at source, if possible, by closing valves, turning off pipes, plugging leaks, etc.
2. Contain releases through berming or other appropriate method;
3. The Facility Response Coordinator or delegated official will organize clean up with in-house and contract services, as required; and
4. David McMurtry will notify regulatory agencies (Lassen County, EPA, and BLM).

c) A single release of > 1000 gallons and/or two releases of > 42 gallons in one year

1. If there is immediate danger, leave the area immediately and call 911
2. Evacuate personnel to an upwind area that is safe from exposure, provide medical attention and first aid as necessary, and follow universal precautions;
3. Stop spill at source, if possible, by closing valves, turning off pipes, plugging leaks, etc.
4. Contain releases through berming or other appropriate method;
5. David McMurtry or delegated official will organize clean up with in-house and contract services, as required; and
6. The Facility Response Coordinator (Site Manager) will notify regulatory agencies (Lassen County, EPA, and BLM).

In accordance with 40 CFR Section 112.4(a), if a facility has a single release exceeding 1,000 U.S. gallons or two releases each exceeding 42 U.S. gallons within any twelve-month period, the following information must be submitted to the EPA Regional Administrator in writing within 60 days:

1. Name of the facility;
2. Name of the owner or facility operator;
3. Location of the facility;
4. Maximum storage or handling capacity of the facility and normal daily throughput;
5. Corrective actions and countermeasures taken, including a description of equipment repairs and replacements;
6. An adequate description of the facility, including maps, flow diagrams, and topographical maps as necessary;
7. The type of material released;
8. Estimates of the quantity released;
9. The cause of the release, including a failure analysis of the system or subsystem in which the failure occurred;
10. A description of all affected media and any damages or injuries caused by the release;
11. Actions taken to stop the release and whether evacuation was necessary;
12. Additional preventive measures taken or contemplated to minimize the possibility of recurrence; and
13. Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge.

Information will be submitted to the address provided below:

U.S. EPA Region 9 Oil Program (SFD-9-4)
75 Hawthorne Street
San Francisco, CA 94105

Spill Reporting Contacts:

California State Warning Center: 1-800-852-7550

National Response Center (NRC): 1-800-424-8802

Environmental Protection Agency (EPA) Region 9: 1-800-300-2193

Appendix E: Woolly Buckwheat Information

Polygonaceae—Buckwheat family

***Eriogonum* Michx.**

wild-buckwheat, buckwheatbrush

Susan E. Meyer

Dr. Meyer is a research ecologist at the USDA Forest Service's Rocky Mountain Research Station, Shrub Sciences Laboratory, Provo, Utah

Growth habit, occurrence, and uses. The North American genus *Eriogonum*—wild-buckwheat, also buckwheatbrush—is made up of about 200 species of annual and perennial herbs and shrubs, most of which are found in the West. About half are woody, at least at the base. The habit of the woody species may be either (a) truly shrubby, (b) subshrubby, with annual renewal of upper shoots, or (c) pulvinate (mat-forming), with the woody shoots condensed into an above-ground caudex. The usually evergreen leaves are borne alternately and may be predominantly basal or borne along the stems. There may be whorls of leaves on the flowering stalks. The leaves are usually tomentose, at least below, and the stem nodes are often tomentose as well. The often-flat-topped inflorescences are usually borne above the leafy part of the plant and are conspicuous and characteristic even after seed dispersal.

Most plant communities in the West contain at least 1 species of woody wild-buckwheat (table 1). Some species are widely distributed and of wide ecological amplitude (for example, sulfurflower buckwheat brush), whereas others are narrowly restricted geographically and often edaphically as well (for example, pretty buckwheat brush). Wild-buckwheat species are often important pioneer plants after natural disturbance, and their presence may facilitate the establishment of later-successional species. This makes them useful for erosion control and for revegetation of anthropogenically disturbed sites such as mined land and highway rights-of-way (Ratcliff 1974; Zamora 1994). Some species are important as browse plants for wild ungulates, particularly in the early spring when their evergreen habit makes them more highly nutritive than many other spring browse species (Tiedemann and Driver 1983; Tiedemann and others 1997). Some wild-buckwheat species are important bee plants. In California, Mojave buckwheatbrush has been rated third in importance for honey production, exceeded only by 2 native *Salvia* species (Kay and others 1977). Many wild-buckwheat species also have tremendous potential as easily grown, drought-tolerant ornamentals. Their interesting forms and leaf textures combined with masses of showy,

long-lasting flowers make them excellent candidates for home xeriscapes. Named varieties that have been released are 'Sierra' sulfurflower wild-buckwheat (Stevens and others 1996) and 'Umatilla' snow wild-buckwheat (Tiedemann and others 1997).

Flowering and fruiting. The small, usually perfect flowers of wild-buckwheat are borne in clusters within cup-like or cylindrical involucre that are variously solitary or arrayed in capitate, cymose, or panicle inflorescences. Each flower consists of a perianth with 9 stamens inserted at its base and a superior 1-celled and 1-seeded ovary. The perianth is made up of 6 fused segments in 2 whorls of 3. The ovary ripens in fruit into a usually 3-angled achene (figures 1 and 2). This achene is held more or less tightly within the perianth, depending on the species. For example, in snow wild-buckwheat the achenes fall free of the perianth at dispersal, whereas in Shockley wild-buckwheat the woolly perianth with the achene enclosed is the dispersal unit. The ovule within the seed is anatropous, so that the radicle end is pointing outward and upward. This makes it possible for germination and emergence to take place with the perianth still attached.

Wild-buckwheat species may flower at any time from early spring to fall, depending on species and habitat. Within a given habitat, species may bloom in succession. For example, at mid-elevation in central Utah, cushion wild-buckwheat blooms in spring, followed by James wild-buckwheat in early to midsummer, and finally by lace buckwheatbrush in late summer and fall. The bloom time for any species usually lasts well over a month, and the plants are almost as showy in fruit as in flower. The flowers are insect-pollinated.

Seed collection, cleaning, and storage. The window of opportunity for seed collection of wild-buckweats is often rather wide, as the fruits usually persist on the plant for 2 to 3 weeks after maturity (Stevens and others 1996). When achenes are mature, the perianths dry and often change color, turning brown or rusty. At this point, the achenes can be harvested by hand-stripping or by beating them into hop-

Table 1— *Eriogonum*, wild-buckwheat: habit, habitat, and geographic range

Species	Common name(s)*	Habitat	Range
SHRUBS			
<i>E. corymbosum</i> Benth.	lace buckwheatbrush, buckwheatbrush, crisp-leaf buckwheat	Desert shrub, pinyon juniper, mostly on shales	Colorado Plateau, Uinta Basin, & adjacent areas
<i>E. fasciculatum</i> Benth.	Mojave buckwheatbrush, California buckwheatbrush, flat-top buckwheatbrush	Warm desert shrub, coastal sage scrub, chaparral, pinyon-juniper	Mojave & Colorado Deserts & coastal & cismontane S California
<i>E. heermannii</i> Dur. & Hilg.	Heermann buckwheatbrush, molecule model plant	Warm desert shrub, mostly on rock outcrops	Mojave Desert
SUBSHRUBS			
<i>E. brevicaule</i> Nutt.	shortstem wild-buckwheat	Open, barren hills, mountain brush to alpine	Central Rocky Mtns of Wyoming, Utah & Idaho
<i>E. heracleoides</i> Nutt.	Wyeth wild-buckwheat, parsnipflower buckwheat	Sagebrush-grassland to aspen & Douglas-fir	N Rocky Mtns from BC to central Utah
<i>E. jamesii</i> Benth.	James wild-buckwheat	Desert shrub to mountain brush & ponderosa pine	S Rocky Mtns S into N Mexico
<i>E. niveum</i> Dougl. ex Benth.	snow wild-buckwheat, snow eriogonum	Sagebrush-grassland	Columbia River Plateau
<i>E. umbellatum</i> Torr.	sulfurflower wild-buckwheat, sulfur wildbuckwheat	Sagebrush-grassland to spruce-fir	Widespread in W North America
PULVINATE/ MAT-FORMING			
<i>E. bicolor</i> M.E. Jones	pretty buckwheatbrush	Cold desert shrub, on Mancos Shale	Central Utah
<i>E. ovalifolium</i> Nutt.	cushion wild-buckwheat, roundleaf buckwheat	Wide range, from cold desert to alpine	Widespread, W North America
<i>E. shockleyi</i> S. Wats.	Shockley wild-buckwheat, mat buckwheat	Desert shrub to pinyon-juniper	Idaho & Colorado to SE California, Arizona, & New Mexico

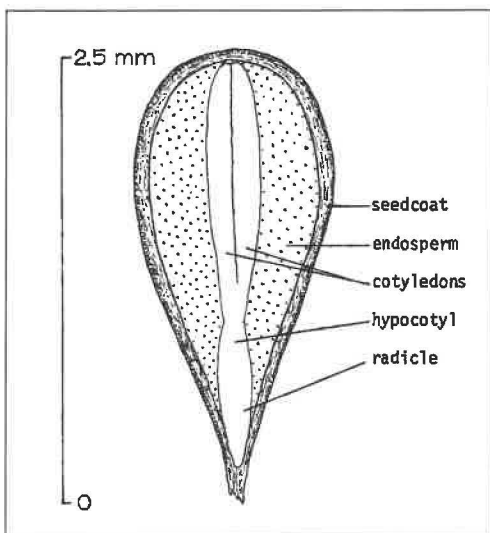
Source: Meyer and Paulsen (2000).

Notes: The genus *Eriogonum* is not that of the true, domesticated buckwheat, hence the common names of wild-buckwheat and buckwheatbrush.

Figure 1—*Eriogonum fasciculatum*, Mojave buckwheatbrush: achene in calyx (left) and achene without calyx (right).



Figure 2—*Eriogonum fasciculatum*, Mojave buckwheatbrush: longitudinal section through a seed excised from an achene.



pers or other containers. Combine harvesting has proven successful for sulfurflower wild-buckwheat in seed production fields (Stevens and others 1996). The harvested material will include achenes, perianths, involucre, and inflorescence branches. After the material is dried thoroughly, it may be threshed in a barley de-bearder and cleaned with a fanning mill. Species with tightly held achenes may require hand-rubbing through screens or on a rubbing board, which is also an alternative cleaning method for small seedlots of any species. The material should not be handled too rough-

ly, as the radicle end of the achene is often slender and easily damaged. Achene weights vary both among and within species but are usually in the range of 350 to 1,360/g (10,000 to 39,000/oz) (table 2). Seed quality is also variable (table 2).

There are few published reports of viability evaluation beyond germination percentages obtained without pretreatment, which may underestimate viability if there is a dormant fraction. Stevens and others (1996) report that viabilities of >90% may be expected from sulfurflower and Wyeth wild-buckwheats in an agronomic setting if seeds are harvested when fully mature; these values are comparable to those for wild-collected lots of many species (table 2). Insects may damage 10 to 35% of the fruits prior to harvest, but damaged seeds are normally eliminated in cleaning. Post-harvest damage from insect infestations is also possible (Stevens and others 1996). There is little information on maintenance of viability during storage for species of wild-buckwheat. Stevens and others (1996) report high viability for sulfurflower and Wyeth wild-buckwheats during 10 to 15 years in warehouse storage, which would indicate orthodox storage behavior. Other species are perhaps comparable.

Seed germination and testing. Germination is epigeal (figure 3). Seedlots of many species of wild-buckwheats contain at least a fraction that will germinate without any pretreatment (tables 2 and 3) (Young 1989). The size of this fraction depends on species and on the particular lot involved. Stevens and others (1996) report that seeds of sulfurflower and Wyeth wild-buckwheats lose dormancy during short periods of dry storage, and Mojave buckwheatbrush seeds are also reported to dry after-ripen (Kay and others 1977). Dormant seeds of most species we have examined lose dormancy during chilling at 1 °C for periods of 8 to 12 weeks (table 3).

To date there are no formal procedures for evaluating the seed quality of wild-buckwheat species, and tetrazolium (TZ) staining is probably the procedure most commonly employed. To evaluate using TZ, achenes are soaked overnight in water, clipped through both pericarp and seed coat at the cotyledon end (the wide end or hilum), and placed in 1% TZ solution for several hours at room temperature. Achenes are bisected longitudinally for evaluation (Belcher 1985).

Field seeding and nursery practice. Wild-buckwheats are generally readily established from direct seeding (Ratcliff 1974; Stevens and others 1996; Tiedemann and Driver 1983; Zamora 1994). They establish best when seeded at a depth of 2 to 5 mm ($1/16$ to $3/16$ in), either by drilling or by broadcasting followed by covering (for example, raking). Seeding should take place before the season of maximum precipitation, which is generally fall or early winter in

Table 2—*Eriogonum*, wild-buckwheat: achene weights and typical viability percentages

Species	Achenes/weight		Viability	
	/g	/lb	%	Test
SHRUBS				
<i>E. corymbosum</i>	900	410,000	93	Post-chilling cut test
	2,000	900,000	—	—
<i>E. fasciculatum</i>	1,330	600,000	4–34	Germination %, no pretreatment
	520–1,085	236,000–490,000	20–46	Germination %, no pretreatment
<i>E. heermanni</i>	660	300,000	95	Post-chilling cut test
SUBSHRUBS				
<i>E. brevicaule</i>	700	320,000	84	Post-chilling cut test
<i>E. heracleoides</i>	350	160,000	95	Post-chilling cut test
	310	141,000	87	Post-chilling cut test
<i>E. jamesii</i>	350	160,000	—	—
<i>E. niveum</i>	1,290–1,360	585,000–620,000	52–72	Germination %, no pretreatment
<i>E. umbellatum</i>	470	213,000	86	Post-chilling cut test
	265	120,000	—	—
PULVINATE/MAT-FORMING				
<i>E. bicolor</i>	960	436,000	47	Post-chilling cut test
<i>E. ovalifolium</i>	990	450,000	95	Post-chilling cut test
<i>E. shockleyi</i>	750	340,000	86	Post-chilling cut test

Sources: Belcher (1985), Kay and others (1977), Meyer and Paulsen (2000), Stevens and others (1996), Tiedemann and Driver (1983).

* Post-chilling cut tests (AOA 1996) are considered accurate for recently harvested seedlots; however, tetrazolium staining (TZ) is required for seedlots stored for more than 2 years.

Table 3—*Eriogonum*, wild-buckwheat: germination percentages

Species	Samples	Germination* (% of total viable seeds)				
		No chill	4 weeks	8 weeks	12 weeks	16 weeks
<i>E. brevicaule</i>	2	3	28	65	86	96
<i>E. corymbosum</i>	3	28	79	100	100	100
<i>E. heracleoides</i>	3	4	11	30	55	77
<i>E. jamesii</i>	2	54	79	91	94	100
<i>E. ovalifolium</i>	2	22	74	98	98	100
<i>E. umbellatum</i>	4	7	30	74	99	100

Source: Meyer and Paulsen (2000).

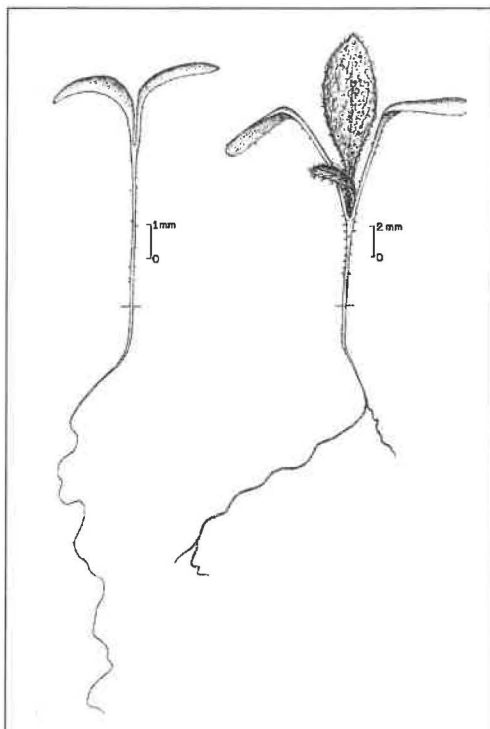
* Germination percentage determined after 0 to 16 weeks of chilling at 1 °C followed by 4 weeks of incubation at 10/20 °C

northern rainfall regions and midsummer in southern rainfall regions. Most wild-buckwheats are early seral and do not compete well with heavy stands of perennial grasses. Wild-buckwheats planted for field seed production are reported to reach 30 to 50% of maximum production, 200 to 400 kg/ha (180 to 360 lb/ac), the second year after planting (Stevens and others 1996).

Most species of wild-buckwheat are also easily propagated in a nursery setting. Shaw (1984) reported that Wyeth wild-buckwheat may be successfully produced as 1+0 bare-root stock. Because of the taprooted habit, plants must be

lifted carefully. Other woody wild-buckwheats could probably be produced as bareroot stock, but no published information is available. Wild-buckwheats may also be produced as container stock; book planters or tube containers such as those used for producing conifer seedlings are most appropriate. Nondormant lots may be direct-sown, whereas seedlots requiring chilling may be sown as chilled seed or as young germlings (Landis and Simonich 1984). Seedlings of many species grow rapidly and should not be held in small containers for more than a few months. Many species flower the first year and may even form flowering stalks while still in small tube containers.

Figure 3—*Eriogonum fasciculatum*, Mojave buckwheat-brush: very young seedling (left) and older seedling (right).



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Appendix F: Land Owner Notification



GEOFORTIS MINERALS

Avalanche Funding LLC
Att: Mr. Fred Orr
5040 Acoma Street
Denver, CO, 80216-2010

via USPS certified mail

December 15, 2021

Notice of Intent to Access Property and Permit Mine

Dear Mr. Orr:

Geofortis Minerals LLC is working to develop Lassenite™ minerals in Lassen County. We have previously attempted to communicate to Mr. Sayed Arif about this matter and now understand that you have taken title to certain of his Lassen County properties.

In May 2015 our predecessor, Cal Minerals, Inc. filed placer claims on a portion of your property within APN's 145-050-04, 145-050-12 and 145-030-16. The property is a split-estate, wherein the right to develop the minerals underlying the property has been severed from the surface ownership and reserved to the Federal Government. The Bureau of Land Management ("BLM") is the Federal Government agency tasked with managing the minerals underlying the Property, as governed by the Mining Law of 1872 and related regulations. As holder of the claims, Geofortis Minerals has the legal right to access your property, obtain permits, and conduct mining operations. Our obligation is to provide you notice prior to entry and to attempt to come to an agreement about access. We must also use no more of the property or disrupt your surface operations than necessary to conduct the mining. We must also reclaim the surface after mining in accordance with all laws. Finally, we must compensate you for lost grazing income, if any, during the mining operations.

This letter provides notice that Geofortis may come on to your property to collect samples using hand shovels or to maintain claim stakes from time to time during the next 12 months. This letter also provides a courtesy notice that Geofortis Minerals has received permits from the BLM and is seeking permits to operate the mine and complete reclamation from Lassen County. A copy of the Lassen County permit application package is enclosed for your information.

I would like to speak with you about an access agreement and your signature on the County permit applications.

Please let me know if you have any questions or contact me to discuss next steps.

Sincerely,

David McMurtry
Vice President, Geofortis Minerals LLC
925-348-3535
dmcmurtry@geofortis.com

Enclosure