GRASSY MOUNTAIN MINE

Spring and Seep Monitoring and Mitigation Plan

Prepared for:

Calico Resources USA Corp.

May 2023

SLR

Spring and Seep Monitoring and Mitigation Plan

Prepared for:
Grassy Mountain Mine Project
Calico Resources USA Corp.
665 Anderson Street
Winnemucca, Nevada 89445

This document has been prepared by SLR International Corporation (SLR). The material and data in this report were prepared under the supervision and direction of the undersigned.

Steven J. Kemnitz, CHMM
Senior Scientist

Mark S. Trevor, PG, QP
Principal Geologist

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ACRONYMS

BLM	Bureau of Land Management- Battle Mountain District
BMPs	Best Management Practices
DOGAMI	Oregon Department of Geology and Mineral Industries
ft	Feet
gpm	Gallons Per Minute
HUC	Hydrologic Unit Code
MSL	Mean Sea Level
NTP	Notice to Proceed
NEPA	National Environmental Protection Act
NPS	National Park Service
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
OHV	Off Highway Vehicle
OSF	Overburden Storage Facility
PoO	Plan of Operation
ROW	Right-of-Way
SLR	SLR International Corporation
SOSF	Spent Ore Storage Facility
SP	Spring Sites
SWMP	Stormwater Management Plan
TRT	Technical Review Team
USEPA	U.S. Environmental Protection Agency
USGS	U.S Geological Survey

1. INTRODUCTION

On behalf of Calico Resources USA Corp. (Calico), SLR International Corporation (SLR) has prepared this spring and seep monitoring and mitigation plan (Plan) to monitor potential impacts to springs and seeps during the proposed mining activities at the Grassy Mountain Mine Project (Project). In developing this plan, SLR reviewed technical reports prepared for Calico that are relevant to the occurrence and characteristics of spring sites within the proposed project footprint and the potential for impacts due to mining. The following report is a monitoring and mitigation plan which follows guidelines in the BLM's mitigation site handbook (BLM, 2021) a site monitoring plan, avoidance and minimization, and a discussion of potential mitigation measures.

Seeps, springs, and flowing wells were investigated in detailed as part of the groundwater baseline study performed for the Project. The results of this baseline study are reported in *Grassy Mountain Gold Project Groundwater – Baseline Data Report* (SPF, 2021). There are a total of 11 baseline springs, 16 background springs, and 2 flowing wells identified in the project area. Table 1 presents the locations of each baseline and background spring and flowing well.

Potential impacts to groundwater and springs due to mining were evaluated through groundwater modeling. The results of the modeling study are presented in *Grassy Mountain Gold and Silver Project, Numerical Hydrogeologic Assessment* (Lorax Environmental, 2022). Only springs which have been identified through hydrogeologic modeling to potentially be impacted by mining operations with 0.2 ft or more of groundwater elevation drawdown will be routinely monitored for water quality and mitigation triggers. Table 1 also identifies the springs which will be monitored as part of this Plan.

Section 1.4 provides a description of the methodology used to assess potential drawdown in the springs. Section 2.0 of the Plan also describes a proposed initial survey of the springs and flowing wells to collect geologic, hydrogeologic, and biologic features.

1.1 PROJECT SETTING

The project is located on public land controlled by BLM and private land controlled by others in Malheur County Oregon, located approximately twenty-two miles south-southwest of the town of Vale. The project area consists of two parcels: the Mine and Process Area and the Access Road Area (Permit Area) (Figure 2).

The Mine and Process Area is located on three patented and unpatented lode mining claims that cover an estimated 886 acres. These claims are part of a larger land position that includes 419 unpatented lode mining claims and nine mill site claims on lands administered by the BLM. All proposed mining would occur on the patented claims, with some mine facilities on unpatented claims.

The access road parcel is located on public land managed by BLM and private land. The main project access road extends north from the Mine and Process Area to Russell Road. The Access Road Area parcel is located in portions of: Section 5, Township 22 South, Range 44 East; Sections 3, 10, 11, 14, 21-23, 28, 29, and 32, Township 21 South, Range 44 East; Sections 1, 12-14, 23, 26, 27, and 34, Township 20 South, Range 44 East; and Sections 23, 26, 35, and 36, Township 19 South, Range 44 East (Willamette Meridian).

1.2 PROJECT DESCRIPTION

The Project is a proposed underground gold mine to be constructed with multiple underground accesses, either vertical excavations (shafts) or ramp excavations (declines). Excavated material from the access construction will be stored in sites near the access on patented mining claims. Horizontal tunnels will be constructed off the shafts and/or declines to access the ore. Typical drilling, blasting, and loading underground mining techniques will be employed.

There will be a quarry as part of the Project, and the quarried rock will be used for construction and as backfill (both rockfill and cemented rockfill) for the underground mine during mining. Development/waste rock produced during mining will be stored in a lined Temporary Waste Rock Storage Facility (TWRSF) before being mixed with binder (i.e., cement and fly ash) to also be used as cemented rock fill in the underground mine.

Mined ore will be briefly stockpiled before crushing and grinding and then beneficiation in a carbon-in-leach circuit. The slurried tailings produced by the leach circuit will be detoxified, mixed with lime to neutralize acid-generation potential, and then deposited in a lined Tailings Storage Facility (TSF).

Water for the mine will be recycled and conserved to the maximum extent possible. Sources of water for mining include stormwater and runoff, water from mine dewatering, and groundwater from a production wellfield that will be constructed north of the mine. Analysis of the balance of water for the mine indicates that there is an overall annual average makeup water requirement of 54 gallons per minute. Discharge of excess water is not anticipated in the dry climatic conditions of the mine location.

1.3 REGULATORY SETTING

The Oregon Department of Fish and Wildlife (ODFW) manages fish and wildlife populations through objectives specified in various management plans. The Oregon Department of State Lands (DSL) has jurisdiction over waters of the state, including wetlands, springs, seeps, perennial streams, and intermittent streams that flow during a portion of every year and which provide spawning, rearing, or food-producing areas for food and game fish.

Oregon Administrative Rule (OAR) Chapter 635 Division 420 prescribes the standards for ODFW review of proposed chemical process mining operations for the purpose of developing conditions for protection of wildlife and their habitat, to further the Wildlife Policy (ORS 496.012) and Food Fish Management Policy (ORS 506.109) of the State of Oregon. Baseline data collection will be used in the development of a wildlife mitigation plan in accordance with OAR 635-420-0060. The wildlife mitigation plan shall include the information required in OAR 635-415-0020(5), which includes the evaluation of affected wildlife habitats. Habitats that shall be addressed in the mitigation plan include surface waterways, streams, seeps, wetlands, and other aquatic habitats.

The methodology required for the Division 37 Oregon Chemical Process Mining Permit is described in OAR 632-037- 0005 through 632-037-0155 and EM Strategies (2017). The methodologies also satisfy Oregon Department of Environmental Quality (ODEQ) requirements, described in Division 43, Chemical Mining (OAR 340-043-0000 through 340-043-0180).

This Plan has been developed under the criteria and/or guidelines established by the Technical Review Team (TRT) assembled for the project, pursuant to Oregon Revised Statute (ORS) 517.967.

1.4 HYDROGEOLOGIC ASSESSMENT

In 2022, Lorax Environmental (Lorax) developed a numerical groundwater model using FEFLOW 7.4. The primary objectives of the modeling were to refine estimates of groundwater inflows to the underground mine, to characterize changes to groundwater flow during mining and after closure, and to characterize drawdown at springs in the mine vicinity that result from mine dewatering and groundwater production for mineral processing.

A series of eight sensitivity runs were completed for the calibration and prediction phases of the model. In each of the eight runs, one or more individual parameters were adjusted with the objective of producing a greater zone of drawdown. Recharge, hydraulic conductivity, and storage properties were adjusted in the sensitivity analysis.

Changes to groundwater conditions were predicted using the groundwater flow model based on the mine plans and parameters presented in the Plan of Operations submitted to the BLM and the Consolidated Permit Application submitted to the Oregon Department of Geology and Mineral Industries (DOGAMI). The prediction runs of the groundwater model indicate that impacts to spring flows will vary through the mine life and closure period. The following springs were within areas predicted by the model to have a maximum drawdown of greater than 0.2 ft:

- Lowe Spring
- Sagebrush Spring
- Spring North of Lowe Reservoir
- Government Corral
- Grassy Spring
- Poison Spring
- South of Poison Spring
- Tank East of Negro Rock
- Red Tank #3

Based on the results of the modeling, Lorax concluded that the majority of springs included in the numerical model are not predicted to experience noticeable declines in water level as a result of mine dewatering and mine water use.

2. SPRING AND SEEP SURVEY

Springs and seeps are natural groundwater discharge areas where underground water intersects the ground surface. Springs can form when naturally moving water reaches a less permeable layer and migrates laterally until it seeps out to the surface. Springs can also form when groundwater moves freely through underground cavities (fractured rock such as limestone) until it reaches the surface. Springs also varies seasonally and yearly depending on the precipitation. These systems typically have large aquifers or confined artesian systems.

As mentioned previously, a detailed spring and seep survey was conducted as part of the groundwater baseline survey (SPF Water Engineering, 2021 and 2022). As part of this Plan, an initial (one-time) survey of the baseline and background springs (and flowing wells) that are located in areas predicted to experience groundwater drawdowns of 0.2 ft. or greater. The initial survey will be conducted at the beginning of mine construction. The objective is to further define baseline conditions.

The survey will consist of, at a minimum, documenting information on soil types, geology and geomorphology, riparian vegetation, wildlife use, flow, water quality, chemistry parameters, surrounding features, and photos.

Wildlife and livestock signs will be assessed including scat, pellets, tracks etc.as well as documenting the observation of live animals. Signs will be categorized into the following classes:

- Class 1: new sign (< 1 month)
- Class 2: seasonal sign (1-3 months)
- Class 3: deteriorated sign (> 3 months)

The total spring area or wetted extent will be delineated including open water, saturated surfaces, facultative wetland emergent vegetation and riparian vegetation including woody plants. The boundary will be delineated using a GPS receiver capable of 10-15 ft accuracy. Within this boundary a total plant inventory will be recorded, including a visual estimate of the % absolute cover per species. The estimate will also include the total percent cover of open water, plant litter, bare ground, rock etc. and other abiotic cover types.

Monitoring signs, objectives and metrics are included in Table 2. Chemistry parameters are listed in Table 3.

Following the initial survey, routine monitoring will be initiated as described in Section 3.

3. MONITORING PLAN

Routine monitoring will occur to observe and detect any changes from baseline conditions and to determine if mitigation is necessary at each site. As stated above, the monitoring plan will be limited to the springs identified in Section 1.4. Table 1 lists the springs included in the monitoring program and Figure 4 shows the locations with respect to the Site.

The goal of the monitoring plan will be to assess if project activities have significantly modified the hydrology at each location to the point where mitigation may be necessary. Table 2 lists the monitoring metrics proposed for this Plan.

3.1 MONITORING EVENTS

Monitoring will occur prior to the Notice to Proceed (NTP) and will continue on a quarterly basis for the first three years of mining operations. Following the initial three-year period, monitoring and sampling results will be reviewed to refine the frequency, location, and constituent list for future monitoring events.

3.2 MONITORING EVENT SCOPE OF WORK

The following measurements for each monitoring event was developed to establish baseline conditions and to trigger actions if mining-related impacts are observed:

- Precipitation/rainfall;
- Spring and well flow rates;
- Field Parameters; and
- Water quality sampling

Section 3.3 describes the methodology for each of the monitoring event components.

In addition, field observations will be recorded during each monitoring event, including photos, evidence of wildlife or livestock activity, and changes in vegetation.

3.3 MONITORING METHODOLOGY

3.3.1 PRECIPITIATION

A tipping bucket rain gauge will be installed at the Project in a central location. The gauge will collect precipitation data at 0.01-inch increments and will be calibrated in accordance with United States Environmental Protection Agency (USEPA) guidance (USEPA, 2000).

3.3.2 FLOW RATES

The flow from each monitoring location will be measured using a container of known volume and a stopwatch. When possible, flow measurements will be accomplished without altering the spring or disturbing the area around the spring. If necessary, temporary piping can be used to collect flow into a measurable stream.

A general description of the spring and any associated stock tanks or ponds will be recorded along with photographic documentation.

3.3.3 FIELD PARAMETERS

The following field parameters will be collected, using a hand-held multi-parameter meter, from the nine identified springs:

- Temperature
- pH
- Electrical Conductivity
- Specific Conductivity
- Dissolved Oxygen

Only locations with a minimum flow rate of 1 gallon per minute (gpm) are to be sampled; flows less than 1 gpm are considered unsuitable for sample collection.

Water samples will be collected in a clean plastic bottle (or a graduated ¼ cup plastic container for low-flow locations). The sensor of the multi-parameter meter will then be placed in the bottle containing the collected water. For those springs that flow continuously, one set of field parameters will be collected. For springs that are valved off, the isolation valve will be opened, and the spring will be allowed to flow for a minimum of 15 minutes prior to the collection of field parameters.

3.3.4 WATER QUALITY SAMPLES

Water quality samples from springs are collected following the recording of field parameters.

Water quality samples for non-filtered samples (non-metals) will be collected from each spring by placing sample bottles directly under the spring discharge pipe or from the spring water surface (if a pipe is not present).

For filtered samples (metals), a water sample will be collected from the spring in a clean plastic container. A peristaltic pump and associated disposable silicone tubing will be used to transfer the water sample from the container, through a disposable high-capacity field filter with 0.45-µm membrane and into the appropriate sample bottle obtained from the laboratory. Sampling procedures will follow the "in-line peristaltic pump filtration from a container" method described in the ODEQ Water Monitoring and Assessment Mode of Operations Manual (ODEQ 2009). Filtration equipment, including tubing and filter, are intended to be single use, and will be discarded after each sample is collected.

All samples will be collected in bottles supplied by the laboratory with the appropriate preservative as required by the testing method. Following collection, samples will be stored in ice-filled coolers and shipped under chain of custody to an accredited analytical laboratory and tested for the constituents listed in Table 3.

4. MITIGATION TRIGGERS

Mitigation will be considered based on measured changes from baseline conditions, for example flow rates below the range measured during baseline characterization, a complete lack of water present, and/or changes to water quality relative to the ranges measured during baseline characterization. Mitigation will be required if the water is not present or the overall size of the spring (through a formal delineation during the initial survey and monitoring events described above) is reduced by half of the seasonal baseline flow for four consecutive monitoring events (one year).

In the event that mitigation is triggered, a detailed mitigation plan will be developed and provided to designated stakeholders (e.g., BLM, ODEQ, DOGAMI, ODFW) for approval within 30 days of the submittal of the quarterly monitoring report (Section 7). The detailed mitigation plan will include the selected mitigation measure (Section 6), proposed location, area and type of disturbance, timeline, etc.

5. INITIAL RESPONSE ACTIVITIES CONCEPTUAL MITIGATION MEASURES

Mitigation, if necessary, will be initiated according to the mitigation triggers developed in this mitigation plan (Section 4). Coordination will occur with the designated stakeholders (e.g., BLM, DOGAMI, ODEQ, ODFW) to determine the appropriate mitigative action prior to implementation. If a spring is dewatered an appropriate mitigation action may replenish the affected spring.

Appendix A contains diagrams of potential mitigation measures which may be implemented.

5.1 GROUNDWATER WELL

One of the more common ways of replacing natural spring discharge is to install a well. The well can be designed to pump water to replace the spring or seep flow at the ground surface.

5.2 STORMWATER CONTROL

One common way of replacing natural spring discharge is to construct a system that will capture and retain stormwater. This may be in the form of constructing a water capture and drainage system that will convey flows to a wildlife and livestock drinking area such as a drinking trough or a lined/unlined stock pond.

5.2.1 GUZZLER OR APRON

This system uses an impermeable apron to capture water on a slope to capture surface water runoff, which is then piped to storage tank and drinking trough (Appendix A). Depending on where it is installed, it can provide an effective method of providing water to animals that will limit trampling and further degradation of a spring.

5.3 ALTERNATIVE WATER SUPPLY

One common way of replacing natural spring discharge is to transport water from an offsite or an onsite location for storage and use at the impacted spring or seep.

6. DATA MANAGEMENT AND REPORTING

6.1 DATA MANAGEMENT

Laboratory reports will be reviewed and validated and the laboratory queried in the event of results outside of quality control parameters. Analytical results, field parameters, and flow measurements will be incorporated each quarter into a site-wide water monitoring database.

Project environmental staff will maintain a master-file with all field observation and data sheets, including all photos for each monitoring location.

6.2 ROUTINE REPORTING

Quarterly reports will be provided to designated stakeholders (e.g., BLM, ODEQ, DOGAMI, ODFW) following each monitoring event. An annual comprehensive monitoring report will be submitted at the end of the calendar year once monitoring begins. Elements within the report will include project background, monitoring methodology, monitoring results, field observations and data sheets, photos, and an evaluation of the springs related to mitigation triggers.

6.3 MITIGATION REPORTING

If mitigation occurs for Site springs, this information will be provided in the quarterly monitoring reports and a mitigation implementation section will be incorporated into the annual monitoring report.

7. REFERENCES

Bureau of Land Management. 2021. Mitigation Handbook H-1794-1. United States Department of the Interior BLM Mitigation Manual Section (MS-1794). August 22, 2021.

Calico Resources USA Corp. 2022. Grassy Mountain Mine Project, Mine Plan of Operations. Submitted to Bureau of Land Management. December 2021. Revised October 2022.

EM Strategies, Inc. 2017. Environmental Baseline Study Work Plans, Grassy Mountain Project, Malheur County, Oregon. Prepared for Calico Resources USA Corp. May 17, 2017. Revised September 22, 2017.

Lorax Environmental. 2022. Grassy Mountain Gold and Silver Project, Numerical Hydrogeologic Assessment. Prepared for SLR International Corporation on behalf of Paramount Gold Nevada Corp. October 21, 2022.

Montgomery and Associates. 2019. Monitoring and Mitigation Plan for Groundwater Dependent Ecosystems and Water Wells. Prepared for Resolution Cooper LLC. April 12, 2019.

Oregon Administrative Rule (OAR) Chapter 635 Division 420 – Department of Fish and Wildlife, Chemical Process Mining Consolidated Application and Permit Review Standards

Oregon Administrative Rule (OAR) Chapter 635 Division 415 – Department of Fish and Wildlife, Fish and Wildlife Habitat Mitigation Policy

Oregon Administrative Rule (OAR) Chapter 632 Division 037 – Department of Geology and Mineral Industries, Consolidated Permitting of Mining Operations

Oregon Administrative Rule (OAR) Chapter 340 Division 043 – Department of Environmental Quality, Chemical Mining

Oregon Revised Statute (ORS) 517.967 – Mining and Mining Claims, Technical Review Teams

Oregon Revised Statute (ORS) 496.012 – Application, Administration, and Enforcement of Wildlife Laws, Wildlife Policy

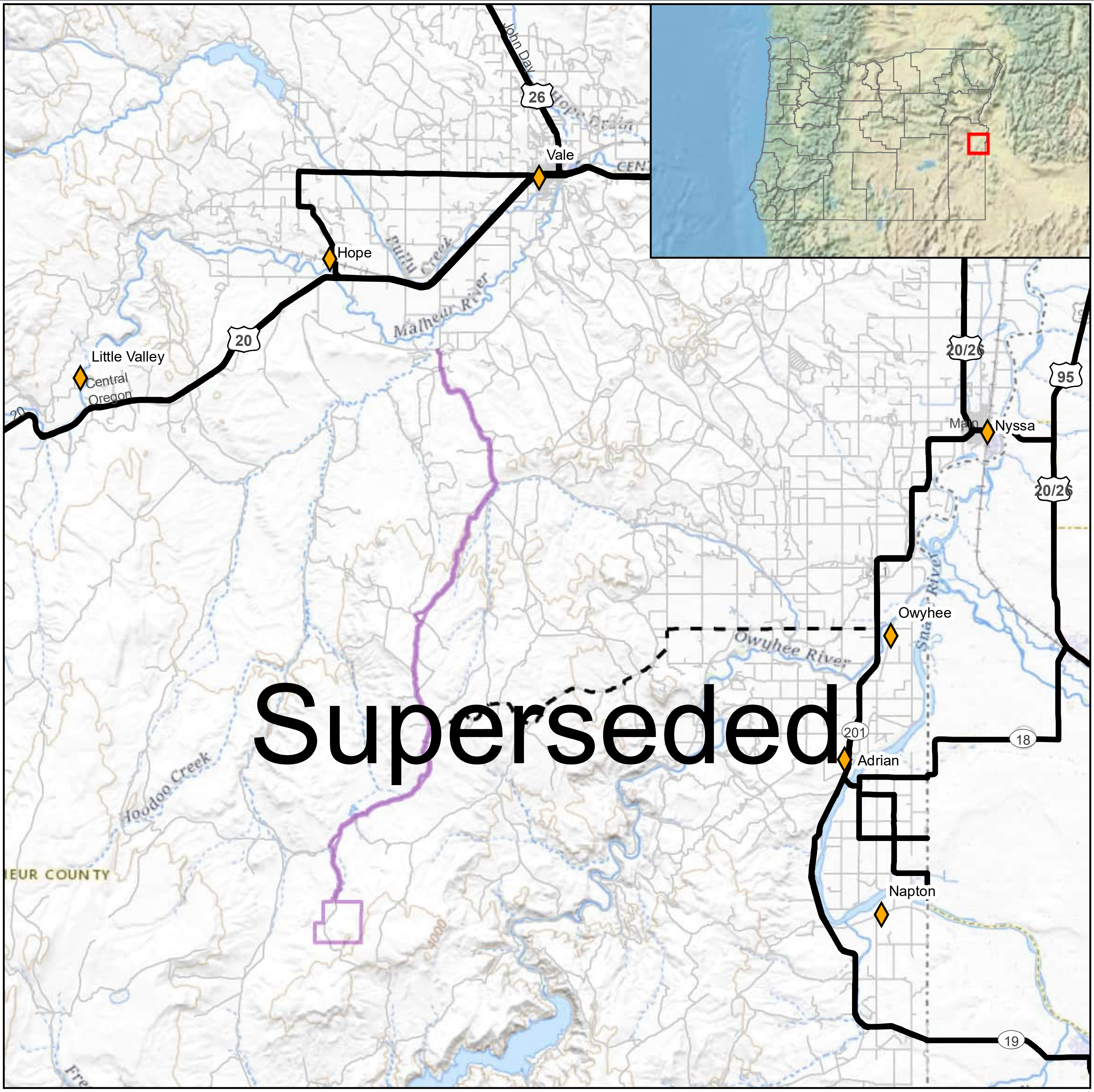
Oregon Revised Statute (ORS) 506.109 – Application, Administration, and Enforcement of Commercial Fishing Laws, Food Fish Management Policy

SPF Water Engineering, LLC. 2022. Monitoring Proposal for Groundwater and facilities Grassy Mountain Project. Prepared for Calico Resources USA Corp. Revised September 30, 2022.

SPF Water Engineering, LLC. 2021. Grassy Mountain Gold Project Groundwater, Groundwater Baseline Data Report. Prepared for Calico Resources USA Corp. December 8, 2021.

FIGURES

Superseded



Legend

PoO Boundary

Emergency Access Road

Roads

1 ":4 Miles

0 1 2 4Miles

Scale as shown when plotted at 8.5"x11".

N W E S

Notes:
1. Figure references 1983 UTM zone 11N datum.
2. Road and highway system were referenced from the Bureau of land Management.

Site/Report:

Calico Resources USA Corp.
Grassy Mountain Mine

Seep and Spring Monitoring and Mitigation Plan

Map:

Location Map

SLR / CALICO RESOURCES

Date:	April, 2023		Figure: 1
Project No:	108.02203.00001		
By: MS		Chk'd: MT	

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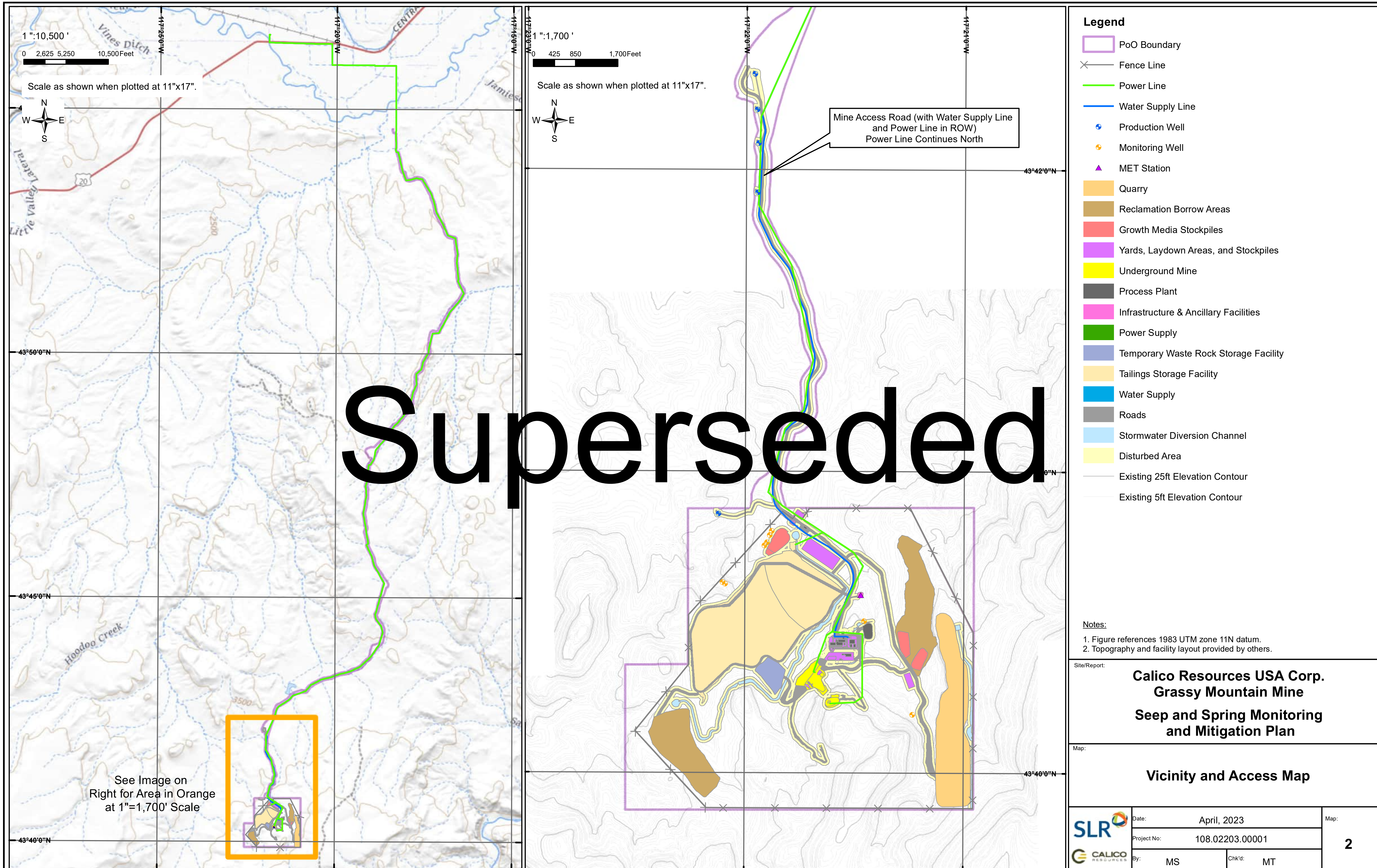
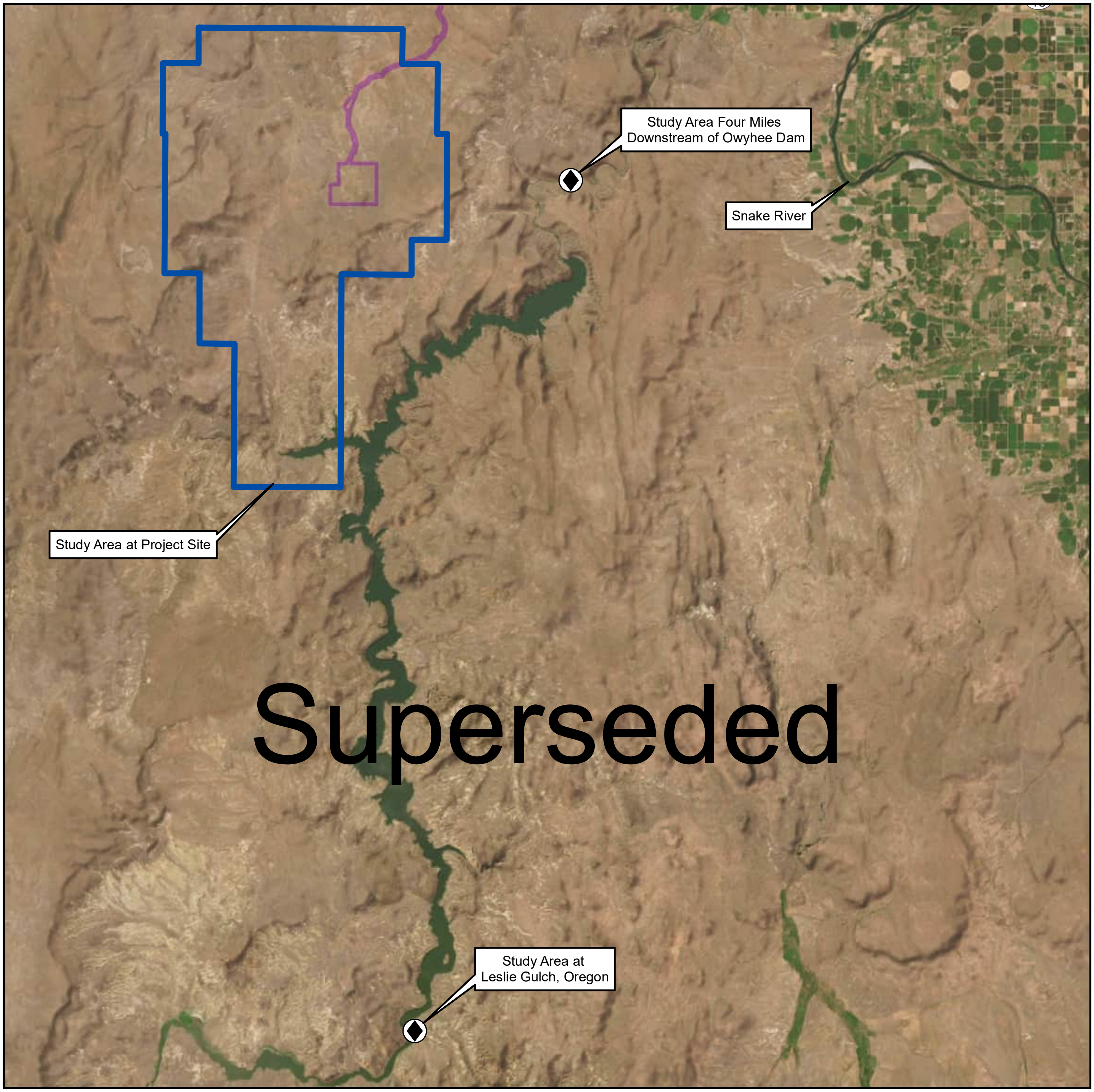


C:\Users\mstrain\OneDrive - SLR Consulting Limited\Grassy Mountain Mine\100 Supporting Deliverables\132 Seep and Spring Mon and Mit Plan\Figures\mxd\GMM Figure 3 Permit Area Map.mxd



Legend

PoO Boundary

Water Resource Study Area

Study Areas

1 ":4 Miles

0 1 2 4Miles

N W E S

Scale as shown when plotted at 8.5"x11".

Notes:

1. Figure references 1983 UTM zone 11N datum.

Site/Report:

Calico Resources USA Corp.
Grassy Mountain Mine

Seep and Spring Monitoring and Mitigation Plan

Map:

Water Resources Study Area

Date:	April, 2023		Figure:
Project No:	108.02203.00001		3
By: MS		Chk'd: MT	

C:\Users\mstrain\OneDrive - SLR Consulting Limited\Grassy Mountain Mine\100 Supporting Deliverables\132 Seep and Spring Mon and Mit Plan\Figures\mxd\GMM Figure 3 Water Resources Study Area V2.mxd

Legend

- PoO Boundary
- Roads
- Background Springs and Wells
- Baseline Springs

1 ":3,000 '

0 750 1,500 3,000 '

Scale as shown when plotted at 11"x17".

Notes:

1. Figure references 1983 UTM zone 11N datum.
2. Topography and facility layout provided by others.

Site/Report:

Calico Resources USA Corp.
Grassy Mountain Mine

Seep and Spring Monitoring and Mitigation Plan

Map:

Quarterly Spring and Tank Monitoring Locations

Date: April, 2023	Map: 4
Project No: 108.02203.00003	
By: MS	Chk'd: MT

Document Path: C:\Users\mstrain\OneDrive - SLR Consulting Limited\Grassy Mountain Mine\100 Supporting Deliverables\132 Seep and Spring Mon and Mit Plan\Figures\mxd\GMM Figure 4 Spring and Tank Monitoring Locations.mxd

TABLES

Superseded

TABLE 1

List of Baseline and Background Springs and Flowing Wells

Grassy Mountain Mine

NAME	Northing (ft. or State Plane South)	Easting (ft. or State Plane South)	MP Elevation (ft. asl)	Quarterly Monitoring & Sampling
BASELINE SPRINGS				
Government Corral	756975.556	5757863.847	3456.01	Yes
Grassy Spring	741738.614	5750275.765	3822.84	Yes
Lowe Spring	761799.478	5753456.679	3278.96	Yes
Poison Spring	759368.751	5740634.211	3213.85	Yes
Sagebrush Spring	759029.757	5761380.835	3481.86	Yes
Sourdough Lower	737582.25	5731598.434	3565.36	No
Sourdough Upper	737587.997	5728058.732	3754.05	No
Twin Springs North	726474.288	5737016.696	3240.02	No
Twin Springs South	725277.033	5737632.836	3210.32	No
Whiskey Spring	725895.946	5746824.847	3230.04	No
Deposit Stock Tank	748376.46	5750879.694	3552.77	No
BACKGROUND SPRINGS				
Red Tank #3	756212.707	5753206.759	3389	Yes
Spring North of Lowe Reservoir	764826.923	5752193.554	3247	Yes
Spring South of Poison Spring	758410.107	5741317.082	3232	Yes
Tank E of Negro Rock	752204.327	5742408.207	3273	Yes
Bull Spring Tank	731798.684	5730323.895	3727	No
Central Grassy Mountain Spring	737920.331	5756588.347	3489	No
East Grassy Mountain Spring	738055.897	5757538.706	3489	No
Negro Rock Canyon Spring	767800.835	5735633.314	31[illegible]7	No
Negro Rock Spring Tank	754[illegible]	[illegible].024	33[illegible]9	No
Oxbow Spring Tank	7[illegible]	[illegible]	3[illegible]5	No
Oxyoke Spring Tank	[illegible]26801.09	5757094.644	3029	No
Spring in Sec13 T22S R44E	739203.805	5773378.134	3005	No
Spring in Sec23 T21S R43E	769162.951	5732244.787	3297	No
West Grassy Mountain Spring	738802.552	5755880.217	3619	No
West Whiskey Spring	757611.371	5728513.411	3547	No
Wildcat Spring	757839.97	5732821.848	3366	No
FLOWING WELLS				
Dark Rock Well	756210.058	5732296.357	3391	No
Flowing Well	761550.474	5727332.014	3532	No

Note:
ft. = feet
asl = above sea level
MP = monitoring point

TABLE 2

Monitoring Metrics

Grassy Mountain Mine

MONITORING METRICS			
Metric	**Signs**	**Monitoring Objective**	**Measured Parameters**
Water Quantity	Surface Water Dynamics	Assess the status of spring discharge and wetted extent.	Flow Estimate (gpm)
	Precipitation	Relate precipitation events to spring conditions.	Precipitation
Water Quality	Water Quality (core parameters)	Assess the status of core water quality parameters.	See Table 3
	Water Chemistry (field parameters)	Assess the status of field water quality parameters	See Table 3
Site Condition	Wildlife, Livestock, and Use	Document Utilization	Presence of Sign
	Plant Assemblage	Assess the presence of obligate/facultative wetland plants and noxious and non-native weeds	Absolute % Cover

TABLE 3

List of Water Quality Analytes

Grassy Mountain Mine

LIST OF WATER QUALITY ANALYTES			
Parameter	**Method**	**Units**	**Sample Type**
Field Measurements			
Flow	Field	GPM	N/A
Temperature	Field	°C	N/A
pH	Field	S.U.	N/A
Specific Conductance	Field	µS/cm	N/A
Electrical Conductivity	Field		N/A
Dissolved Oxygen	Field	mg/L	N/A
Laboratory Analyses			
Aluminum, Al	EPA 200.7	mg/L	Total and Dissolved
Antimony, Sb	EPA 200.8	mg/L	Total and Dissolved
Arsenic, As	EPA 200.8	mg/L	Total and Dissolved
Barium, Ba	EPA 200.7	mg/L	Total and Dissolved
Beryllium, Be	EPA 200.8	mg/L	Total and Dissolved
Bismuth, Bi	EPA 200.7	mg/L	Total and Dissolved
Boron, B	EPA 200.8	mg/L	Total and Dissolved
Cadmium, Cd	EPA 200.8	mg/L	Total and Dissolved
Calcium, Ca	EPA 200.7	mg/L	Total and Dissolved
Chromium, Cr	EPA 200.8	mg/L	Total and Dissolved
Cobalt, Co	EPA 200.8	mg/L	Total and Dissolved
Copper, Cu	EPA 200.8	mg/L	Total and Dissolved
Gallium, Ga	EPA 200.7	mg/L	Total and Dissolved
Iron, Fe	EPA 200.7	mg/L	Total and Dissolved
Lead, Pb	EPA 200.8	mg/L	Total and Dissolved
Lithium, Li	EPA 200.7	mg/L	Total and Dissolved
Magnesium, Mg	EPA 200.7	mg/L	Total and Dissolved
Manganese, Mn	EPA 200.8	mg/L	Total and Dissolved
Mercury, Hg	1631E	mg/L	Total and Dissolved
Molybdenum, Mo	EPA 200.8	mg/L	Total and Dissolved
Nickel, Ni	EPA 200.8	mg/L	Total and Dissolved
Potassium, K	EPA 200.7	mg/L	Total and Dissolved
Scandium, Sc	EPA 200.7	mg/L	Total and Dissolved
Selenium, Se	EPA 200.8	mg/L	Total and Dissolved
Silver, Ag	EPA 200.8	mg/L	Total and Dissolved
Sodium, Na	EPA 200.7	mg/L	Total and Dissolved
Strontium, Sr	EPA 200.7	mg/L	Total and Dissolved
Thallium, Tl	EPA 200.8	mg/L	Total and Dissolved
Uranium, U	EPA 200.8	mg/L	Total and Dissolved
Vanadium, V	EPA 200.8	mg/L	Total and Dissolved
Zinc, Zn	EPA 200.7	mg/L	Total and Dissolved
Nitrate+Nitrite (as N)	EPA 353.2	mg/L	Total
Ammonia Direct (as N)	EPA 350.1	mg/L	Total
Alkalinity	SM 2320B	mg/L	Total
Bicarbonate	SM 2320	mg/L	Total
Carbonate	SM 2320	mg/L	Total
Chloride, Cl	EPA 300.0	mg/L	Total
Conductivity	SM 2510B	mg/L	Total
Cyanide, Total	EPA 335.4	mg/L	Total
Cyanide, WAD	SM 4500	mg/L	Total
Fluoride, F	EPA 300.0	mg/L	Total
Hardness	SM 2340 B	mg/L	Total
pH	SM 4500-H B	mg/L	Total
Sulfate, SO_4	EPA 300.0	mg/L	Total
Total Dissolved Solids	SM 2540C	mg/L	Total
Total Suspended Solids	SM 2540D	mg/L	Total
Total Phosphorus	EPA 365.1	mg/L	Total

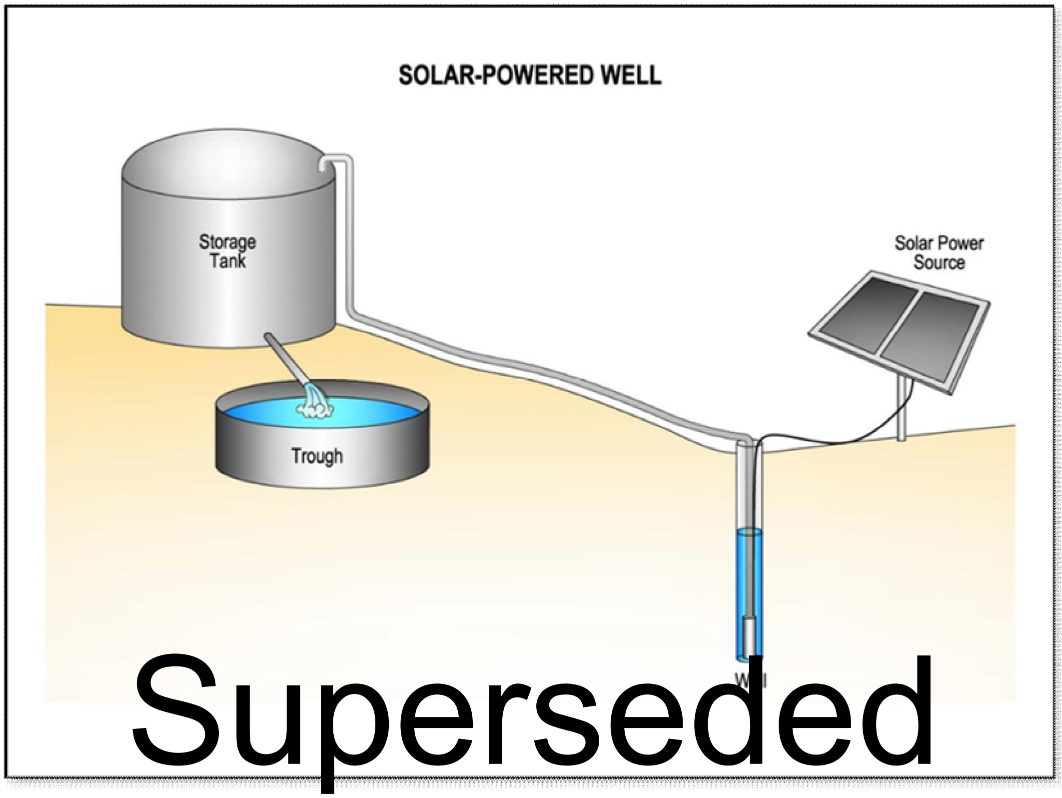
Notes:
GPM = Gallons per minute
°C = Degrees Celsius
S.U. = Standard Units
µS/cm = Microsiemens per centimeter
mg/L = Milligrams per liter
N/A = Not applicable
EPA = Environmental Protection Agency
SM = Standard Methods
WAD = Weak Acid Digestion

APPENDIX A

CONCEPTUAL MITIGATION DESIGNS

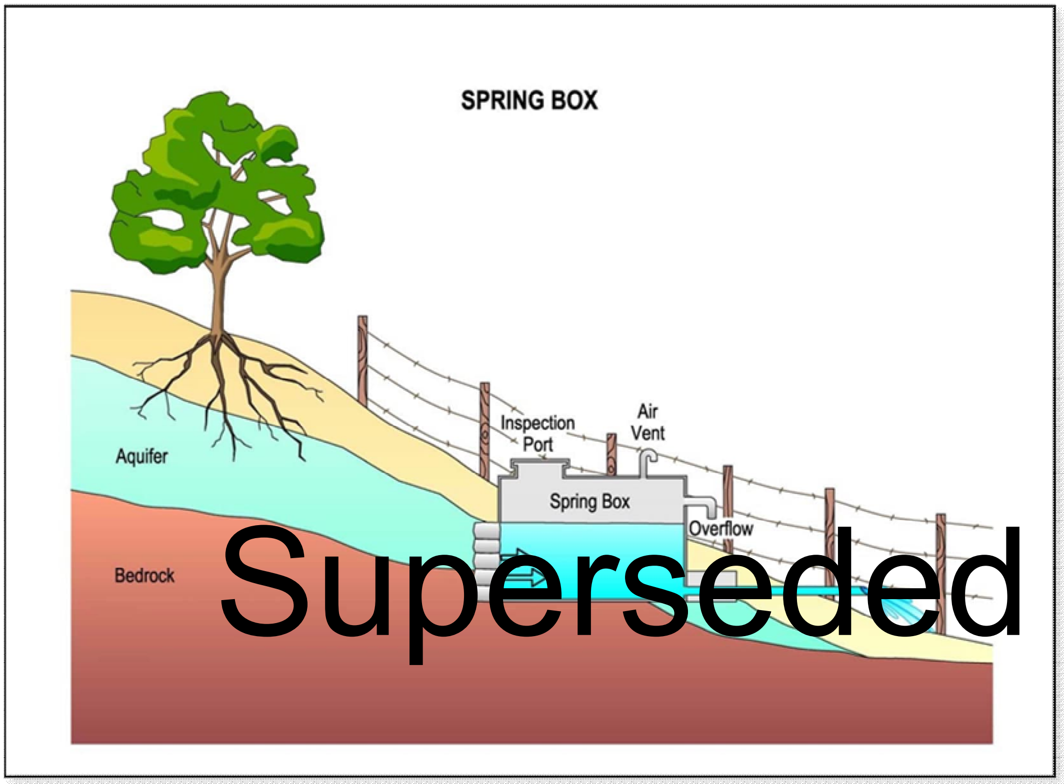
Superseded

Figure A1. Conceptual Well Design



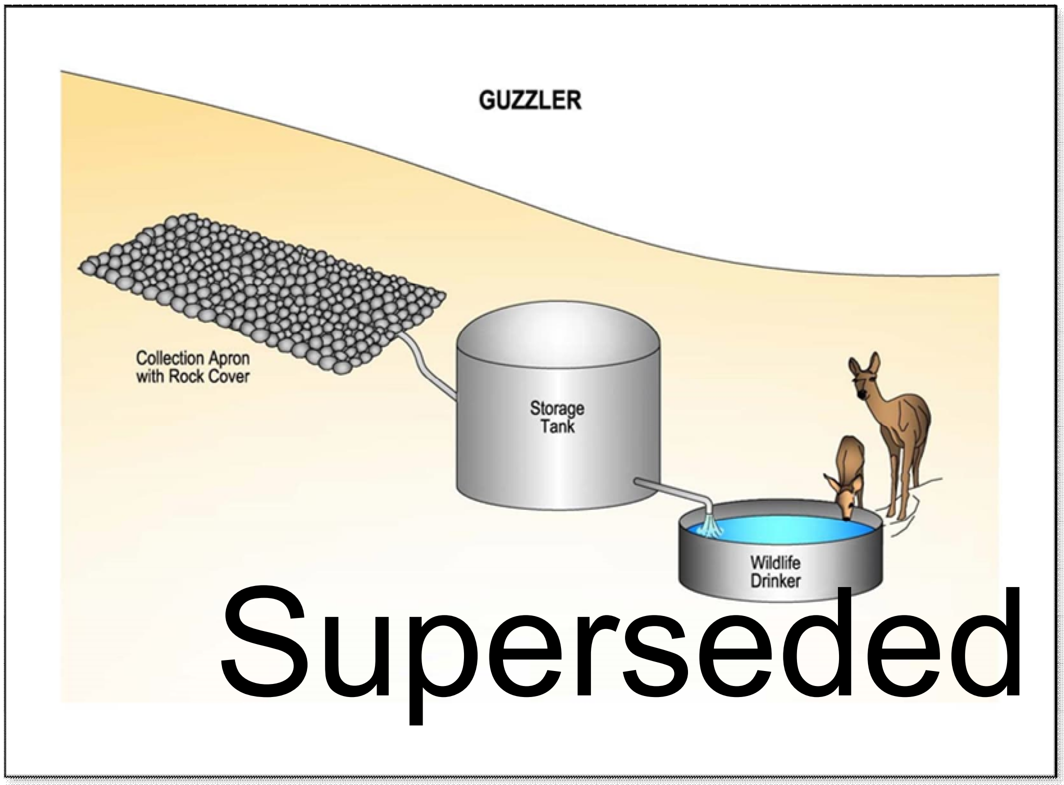
Footnote: Graphic Source Montgomery & Associates (2019)

Figure A2. Conceptual Spring Box Design



Footnote: Graphic Source Montgomery & Associates (2019)

Figure A3. Conceptual Surface Water Capture System



Footnote: Graphic Source Montgomery & Associates (2019)