Grassy Mountain Mine

Spring and Seep Monitoring and Mitigation Plan

Calico Resources USA Corp.

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SLR Project No.: 108.02703.00004

March 19, 2024

Revision: 1

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Revision Record

Revision	Date	Prepared By	Checked By	Authorized By
0	May 2023	SLR	SLR, Calico	Calico
1	March 2024	SLR	SLR, Calico	Calico

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Acronyms and Abbreviations

<	less than
>	greater than
±	plus or minus
Calico	Calico Resources USA Corp.
DOGAMI	Oregon Department of Geology and Mineral Industries
DSL	Oregon Department of State Lands
gpm	gallons per minute
GPS	Global Positioning System
Lorax	Lorax Environmental
mV	millivolts
NTP	Notice to Proceed
NTU	nephelometric turbidity unit
OAR	Oregon Administrative Rule
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ORP	oxidation-reduction potential
ORS	Oregon Revised Statute
Permit Area	Mine and Process Area and the Access Road Area
Plan	Spring and Seep Monitoring and Mitigation Plan
Project	Grassy Mountain Mine Project
SLR	SLR International Corporation
SPF	SPF Water Engineering, LLC
TRT	Technical Review Team
TSF	Tailings Storage Facility
TWRSF	Temporary Waste Rock Storage Facility
USEPA	United States Environmental Protection Agency
µm	micrometer

1.0 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 Bureau of Land Management's mitigation site handbook (BLM, 2021) a site monitoring plan, avoidance and minimization, and a discussion of potential mitigation measures.

This Plan addresses potential impacts to the seeps and springs, whether those are from the proposed mining operations, natural occurrences, and/or climate change. This Plan proposes monitoring to observe and detect any changes from seep and spring baseline conditions, and to determine if mitigation is necessary. Mitigation efforts associated with proposed mining operations are discussed specifically but also address the potential effects of climate change or other changes to the seeps and springs observed from baseline conditions.

Seeps, springs, and flowing wells were investigated in detail as part of the groundwater baseline study performed for the Project. The results of this baseline study are reported in the *Grassy Mountain Gold Project Groundwater Vol. I, 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, 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 of this 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 (Oregon Revised Statute [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, Inc. (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 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 Mine 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.

2.0 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, 2021 and 2022). Photographs of the springs taken in 2018 as part of the Aquatic Resources Baseline Report (EM Strategies, 2018) are included as Appendix A. 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 will be performed. 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 Global Positioning System (GPS) receiver capable of 10-15 ft accuracy. Within this boundary a total plant inventory will be recorded, including a visual estimate of the percent 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.

3.0 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 were developed to establish baseline conditions and to trigger actions if mining-related impacts are observed:

- Precipitation/rainfall,
- Spring and well flow rates,
- Field Parameters,
- Seep and spring water quality sampling, and
- Groundwater level monitoring.

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 Precipitation

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 and General Observations

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, and
- 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 Seep and Spring 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 micrometer (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.

3.3.5 Groundwater Level Monitoring

Two groundwater monitoring wells will be installed for the purpose of collecting groundwater elevation data to assess if groundwater levels near select springs are impacted by water supply operations. Proposed monitoring well locations are shown in Figure 4. The monitoring wells are proposed to be screened in the Grassy Mountain Formation, which is the same aquifer from which mine production wells are proposed to draw water. The screened interval for the proposed monitoring wells will be determined during the installation activities to confirm the well screens are in the Grassy Mountain Formation.

Wells will be installed in accordance with Oregon Water Resources Department regulations. Well logs will be prepared. The wells will be developed and the well top of casing will be surveyed.

Static groundwater levels will be measured with an electronic water-level sensor that indicates, with a visual light or audible tone, when the sensor contacts water. The water level should be recorded to the nearest 0.01 ft. The depth to water measurement shall be referenced to a measuring point marked at the top of the innermost well casing. Where a measuring point has not been marked at the top of the innermost casing, the measuring point shall be assumed to be at the top of the north side of the innermost casing.

During groundwater level measurement activities, measurements of the water level should be collected twice at each well. If there is poor agreement between the first and second static water level measurements (i.e., a difference of more than 0.01 ft), the data should be evaluated for measurement errors that may have impacted the accuracy of the measurement. If the disagreement cannot be reconciled, take a third water level measurement at the sampling point to assess the water level and verify non-steady state conditions.

Decontamination of the water level sensor should occur prior to and after each use. The standard protocol for decontamination is as follows:

- Scrub and wash with laboratory-grade detergent (e.g., Liquinox™) and tap water.
- Triple rinse with distilled water.

If water quality data indicate that the water in the well is not contaminated with foreign substances, sensor decontamination can consist of just the triple rinse with distilled water.

3.3.5.1 Groundwater Quality Sampling

Groundwater quality sampling, for the purposes of assessing groundwater quality in the vicinity of select springs, may be conducted at the newly installed wells as part of an evaluation in the event of changes in select springs flow or water quality. The water quality testing procedures for seep and spring monitoring wells should be the same as the procedures designated for other groundwater monitoring locations for the site. In the event no procedures have been established, the following procedures should be used.

USEPA low-flow purge and sample methodology will be followed for groundwater well sampling activities (USEPA, 1996). Low-flow sampling methodology minimizes entrainment (mixing) of the water above the screened interval, targeting inflow directly from the level at which water is pumped. The method also minimizes exposure of well bore materials to oxygen. The low-flow sampling methodology will adhere to the following:

- Well drawdown will be monitored and minimized to prevent mixing of casing water and/or disturbance of the sampling zone.
- Field parameters (pH, temperature, conductivity, dissolved oxygen, turbidity, and oxidation-reduction potential [ORP]) will be monitored throughout well purging typically at intervals of every two to five minutes.
- Flow rates will be maintained between 0.05 and 0.15 gpm, or as needed, to maintain a consistent water level (i.e., within 0.3 ft).
- Stabilization of field parameters will be considered indicative that representative formational groundwater is being removed and sufficient purge water has been removed from the discrete flow zone as follows:

  - Temperature: plus or minus (±) 10%,
  - Conductivity: ± 3%,
  - pH: ± 0.1,
  - DO: ± 10%,
  - ORP: ± 20 millivolts (mV), and
  - Turbidity: ± 10% or <10 nephelometric turbidity units (NTUs).

Once field parameters have stabilized, non-filtered samples (non-metals) will be collected directly into laboratory-provided containers with appropriate preservative, as applicable, from polyethylene tubing connected to the purge pump. For filtered samples (metals), groundwater will be passed through a disposable high-capacity field filter with 0.45 μm membrane and into the appropriate sample bottle obtained from the laboratory. 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.

All equipment that comes into contact with groundwater will be decontaminated. Disposable equipment intended for one-time use will not be decontaminated but will be disposed of appropriately. Decontamination will occur prior to and after each use of a piece of equipment. The standard protocol for decontamination will be as follows:

- Scrub and wash with laboratory-grade detergent (e.g., Liquinox™) and tap water.
- Triple rinse with distilled water.

4.0 Mitigation Triggers

Mitigation measures will be implemented based on changes to spring and seep baseline conditions resulting from mining operations as presented in Table 4-1. This table is based on the measured/observed/estimated flow rates measured during baseline characterization, changes to water quality relative to the ranges measured during baseline characterization, measured groundwater elevations. Immediate mitigation measures will be triggered for the following conditions that have resulted from mining activities:

- The spring or seep water is not present during a four-month season when was present during baseline assessment.
- The spring or seep flow is reduced to one quarter or less the measured seasonal baseline flow.
- The overall size of the spring or seep ground surface wetted area (through a formal delineation during the baseline survey and monitoring events) is one quarter or less the measured season baseline area.

Immediate mitigation measures are not triggered if one or more of these measured conditions are consistent with climatic conditions unrelated to mining operations (e.g., an extended period of severe drought).

Immediate mitigation measures, if triggered, consist of consultation with stakeholders (e.g., BLM, ODEQ, DOGAMI, ODFW) followed by the installation of a well or use of the nearby well that will be fitted with a pump to replace the spring or seep flow at the ground surface at or near the location of the spring or seep. Additionally, examples of possible mitigative actions are provided in Appendix B. If immediate mitigation measures are triggered and if the implementation of immediate measures is anticipated to take more than 90 calendar days from the triggering event, then transportation of water from an offsite or an onsite potable water source will be used to provide water at the location of the affected spring or seep until the immediate mitigation measures are operating.

Table 4-1 provides a summary of the monitoring proposed and the conditions that would trigger mitigation.

Table 4-1 Monitoring Data and Triggering Events (Non-immediate Measures)

Proposed groundwater monitoring well (near spring wells)	Spring or Seep flow or significant water quality changes	Observation or triggered action
Measured drop in GW elevation	No change from baseline conditions	No action needed
Measured drop in GW elevation	Reduced flow/water quality changes	Evaluation triggered
No measured drop in GW elevation	No change from baseline	No action needed
No measured drop in GW elevation	Reduced flow/water quality changes	Evaluation triggered

If a triggering event occurs, monitoring data will be used to perform an evaluation of potential causes. The evaluation will be used to determine if water supply operations are a contributing factor to the triggering event and if mitigation is warranted.

Following a triggering event, and a subsequent determination that water supply operations are a contributing factor, 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 results of the evaluation of the triggering event, the selected mitigation measure (Section 6), proposed location, area and type of disturbance, timeline, etc.

5.0 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 B contains diagrams of potential mitigation measures that 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 B). 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.

6.0 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.

7.0 References

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Limitations

The services described in this work product were performed in accordance with generally accepted professional consulting principles and practices. No other representations or warranties, expressed or implied, are made. These services were performed consistent with our agreement with our client. This work product is intended solely for the use and information of our client unless otherwise noted. Any reliance on this work product by a third party is at such party's sole risk.

Opinions and recommendations contained in this work product are based on conditions that existed at the time the services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this work product.

The purpose of an environmental assessment is to reasonably evaluate the potential for, or actual impact of, past practices on a given site area. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an appropriate level of analysis for each conceivable issue of potential concern. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

No investigation can be thorough enough to exclude the presence of hazardous materials at a given site. If hazardous conditions have not been identified during the assessment, such a finding should not therefore be construed as a guarantee of the absence of such materials on the site, but rather as the result of the services performed within the scope, practical limitations, and cost of the work performed.

Environmental conditions that are not apparent may exist at the site. Our professional opinions are based in part on interpretation of data from a limited number of discrete sampling locations and therefore may not be representative of the actual overall site environmental conditions.

The passage of time, manifestation of latent conditions, or occurrence of future events may require further study at the site, analysis of the data, and/or reevaluation of the findings, observations, and conclusions in the work product.

This work product presents professional opinions and findings of a scientific and technical nature. The work product shall not be construed to offer legal opinion or representations as to the requirements of, nor the compliance with, environmental laws rules, regulations, or policies of federal, state or local governmental agencies.

Tables

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	3117	No
Negro Rock Spring Tank	754844.533	5737277.024	3319	No
Oxbow Spring Tank	729591.481	5756563.613	3065	No
Oxyoke Spring Tank	726801.09	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 Land 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

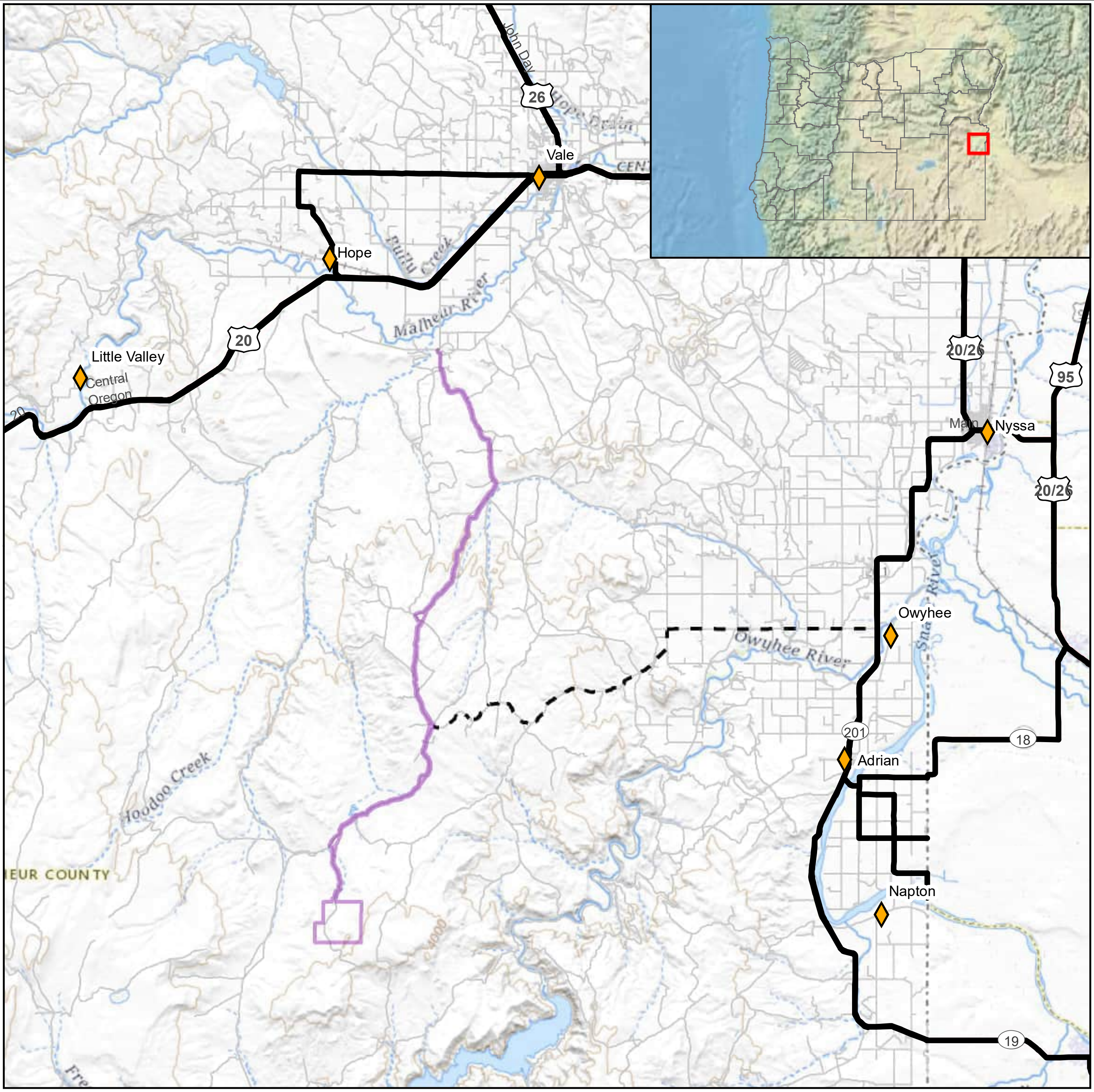
List of Water Quality Analytes

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

Figures



Legend

PoO Boundary

Emergency Access Road

Roads

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.
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

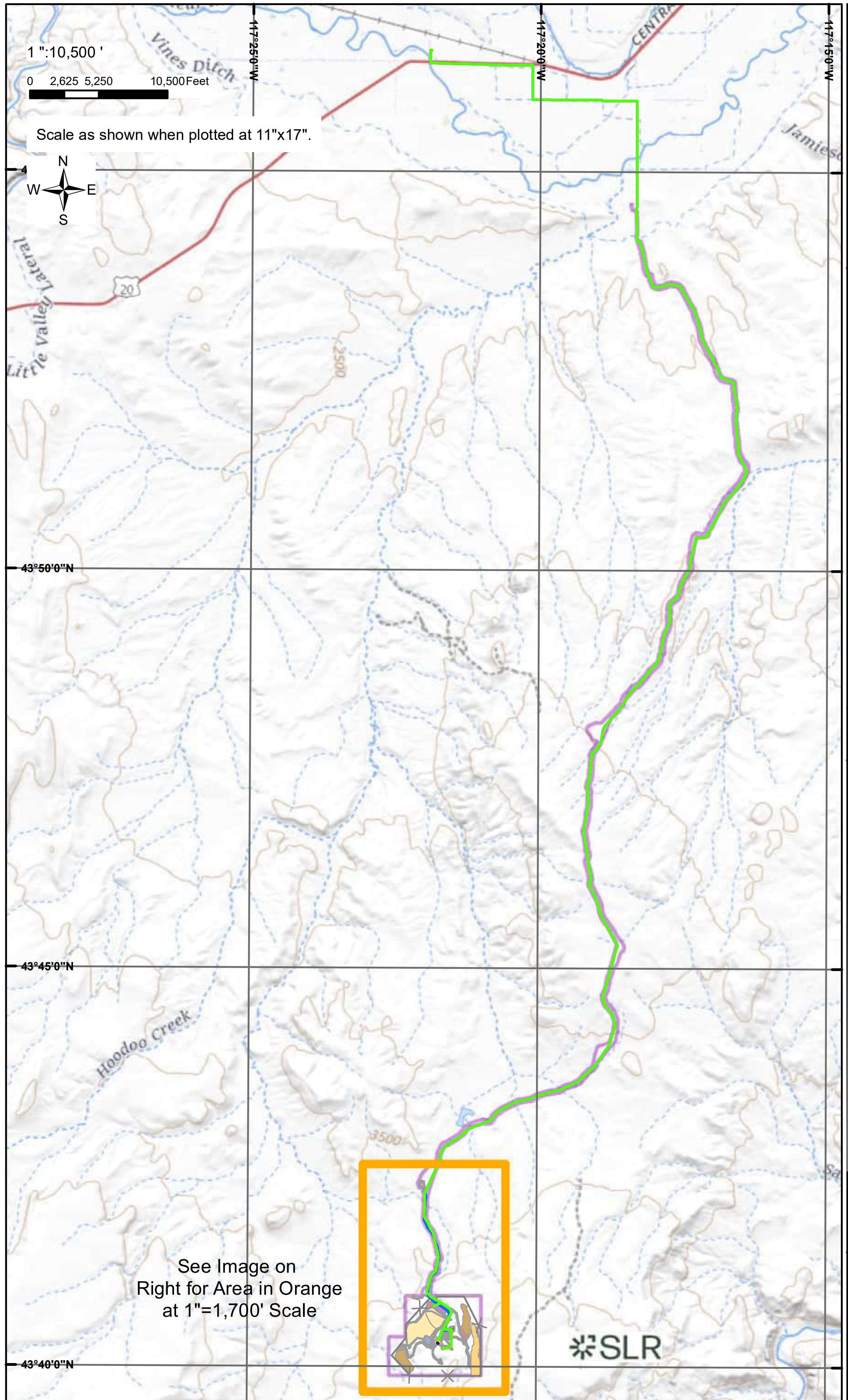
SLR

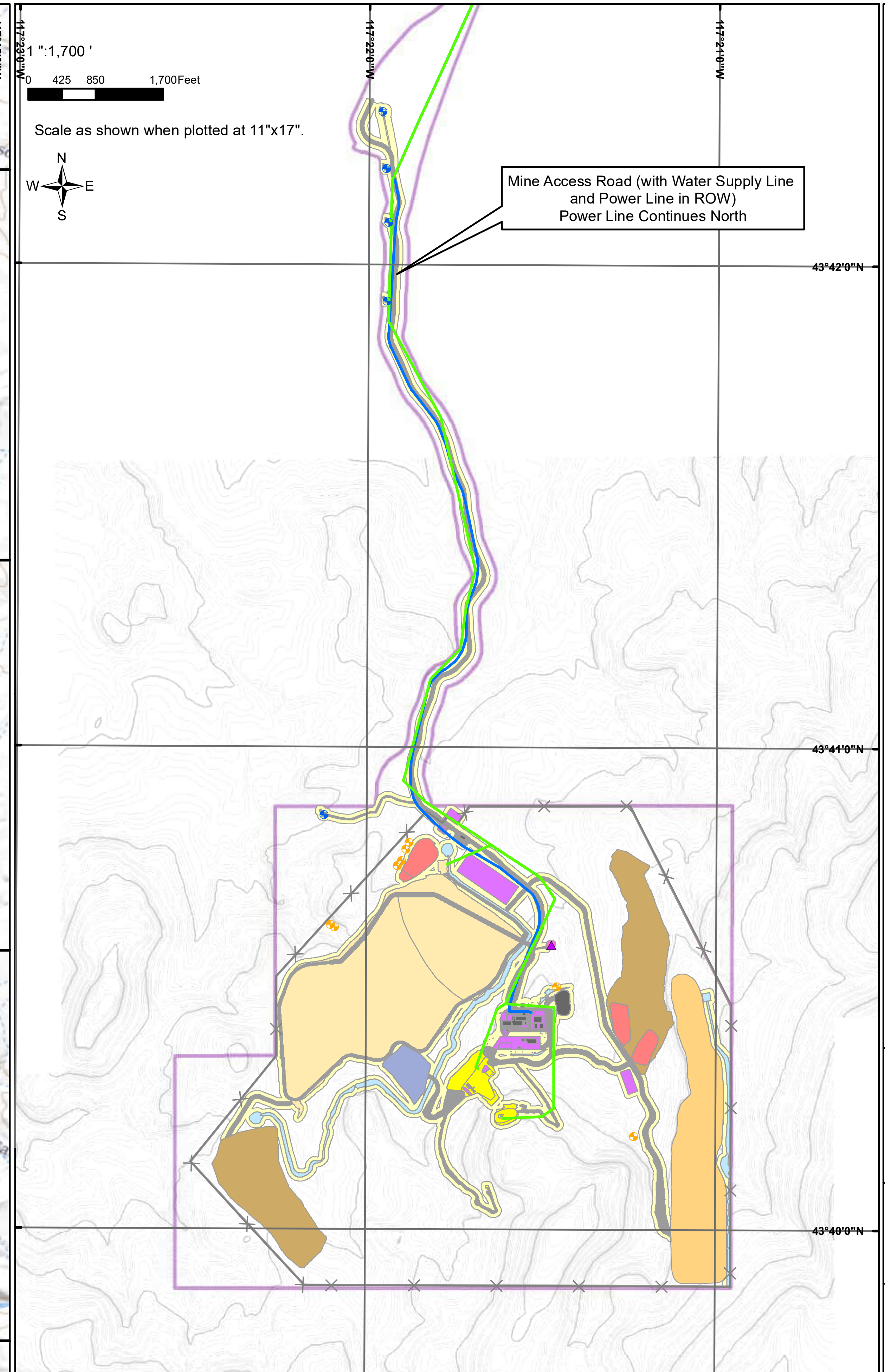
CALICO RESOURCES

Date:	February, 2024		
Project No:	108.02203.00003		
By:	MS	Chk'd:	MT

Figure: 1

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 1 Location Map.mxd





Legend

- PoO Boundary
- Fence Line
- Power Line
- Water Supply Line
- Production Well
- Monitoring Well
- MET Station
- Quarry
- Reclamation Borrow Areas
- Growth Media Stockpiles
- Yards, Laydown Areas, and Stockpiles
- Underground Mine
- Process Plant
- Infrastructure & Ancillary Facilities
- Power Supply
- Temporary Waste Rock Storage Facility
- Tailings Storage Facility
- Water Supply
- Roads
- Stormwater Diversion Channel
- Disturbed Area
- Existing 25ft Elevation Contour
- Existing 5ft Elevation Contour

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

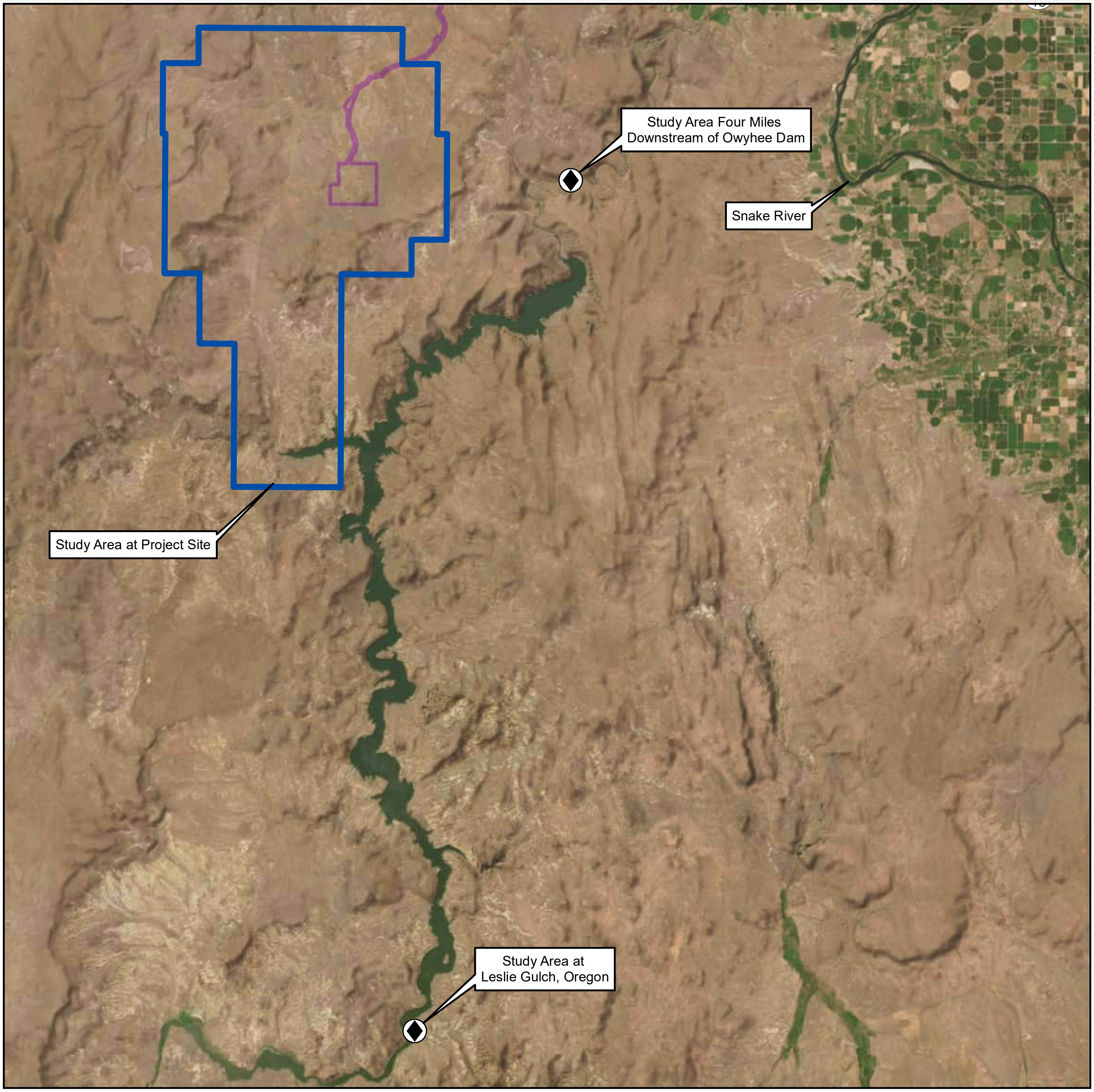
Seep and Spring Monitoring and Mitigation Plan

Map:

Vicinity and Access Map

SLR
CALICO RESOURCES

Date:	February, 2024		Map:
Project No:	108.02203.00003		2
By:	MS	Chk'd: MT	



Legend

- PoO Boundary
- Water Resource Study Area
- Study Areas

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.

Site/Report:

Calico Resources USA Corp.
Grassy Mountain Mine

Seep and Spring Monitoring and Mitigation Plan

Map:

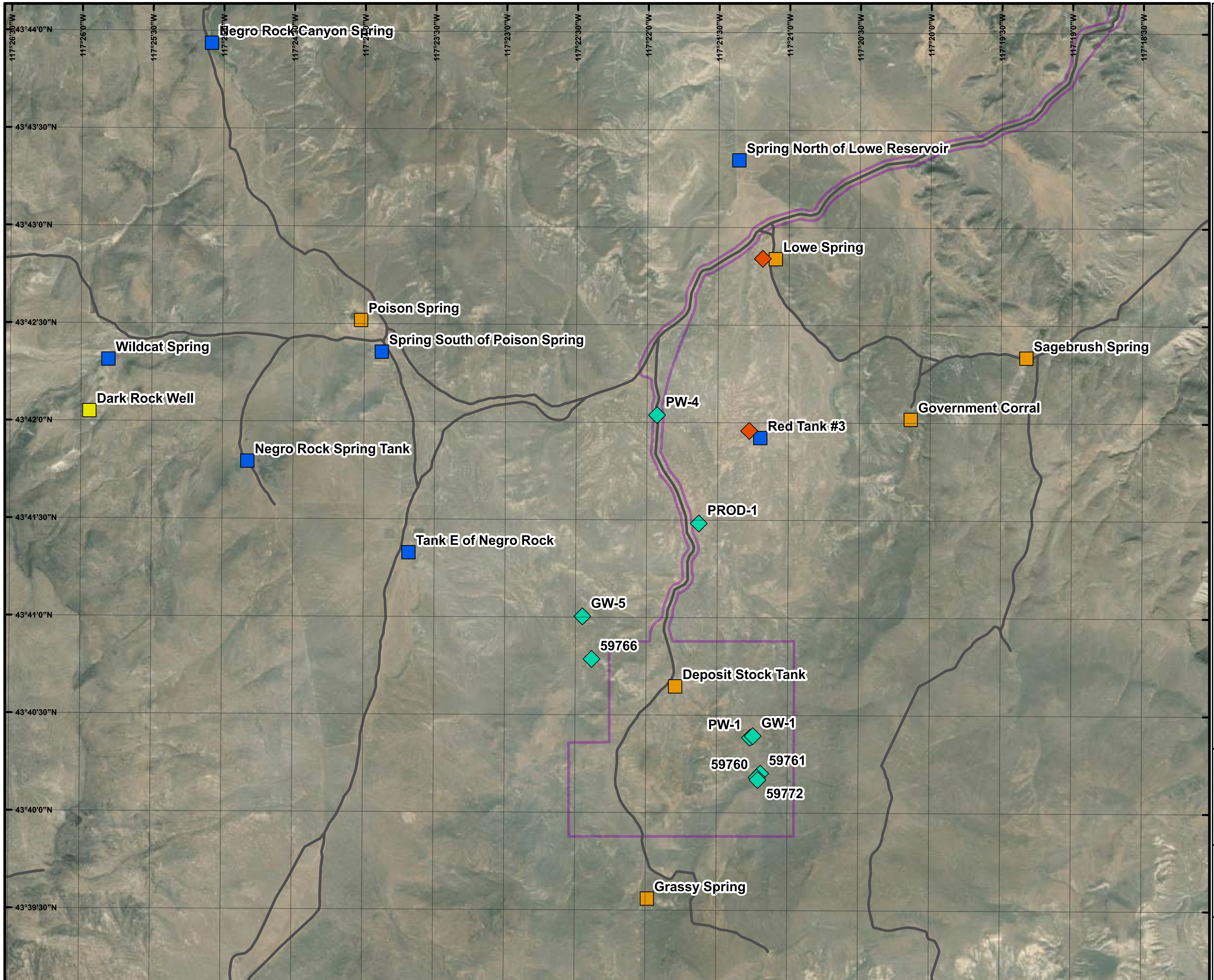
Water Resources Study Area

SLR

CALICO RESOURCES

Date:	February, 2024		Figure:
Project No:	108.02203.00003		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 Spring and Wells
- Baseline Springs
- Flowing Wells
- Proposed Groundwater Monitoring Wells
- Existing Production / Monitoring Wells

Project Well Name	Start Card	Log #	Well Tag #
GW-1	None	2281	107469
GW-3A	24686		
GW-5	None	54194	
GW-6	None	2578	109368
59772	59772	2984	109352
59761	59761	2993	109400
MW-6	59765		
59766	59766	2979	107468
PROD-1	9256	2275	107457
PW-1	W-14816	2276	109353
PW-4	None	2206	109351
59760	59760	2974	107462
GMW17-31	1035606		125168

1:36,000

0 750 1,500 3,000 '

N W E S

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, Tank, and Groundwater Monitoring Locations

SLR

CALICO RESOURCES

Date:	March 2024		Map: 4
Project No:	108.02203.00003		
By:	MS	Chk'd: MT	

Appendix A Site Photographs

Photo A-1. Negro Rock Canyon

Photo A-2. Poison Springs

Photo A-3. Sourdough Springs - tank

Photo A-4. Between Upper and Lower Sourdough Springs

Photo A-5. Bull Spring

Photo A-6. Wildcat Spring

Photo A-7. Flowing Well

Photo A-8. Lowe Spring

Photo A-9. Twin Springs North

Photo A-10. Twin Springs South

Photo A-11. Whiskey Springs - trough

Photo A-12. Whiskey Springs – down slope

Photo A-13. Grassy Mountain Spring

Photo A-14. Sagebrush Spring

Photo A-15. Government Corral Springs

Photo A-16. Spring

Photo A-17. Grassy Spring

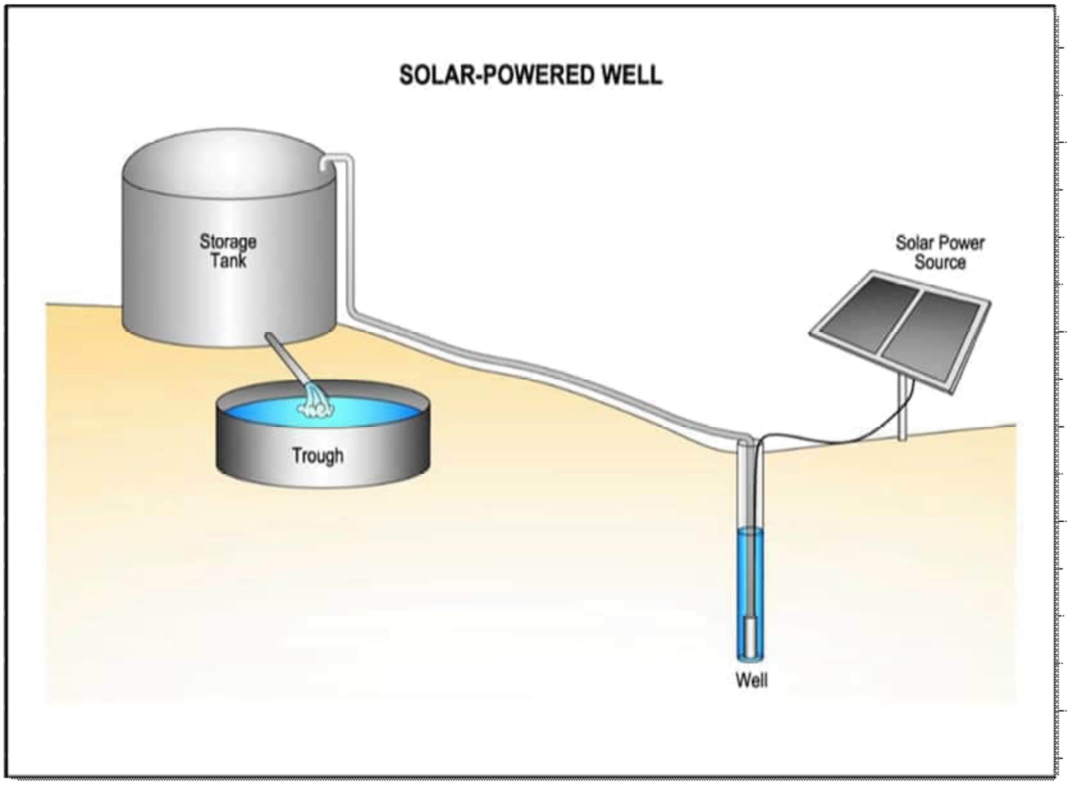
Photo A-18. Grassy Springs Stock Tank

Photo A-19. Pond 1

Photo A-20. Pond 2

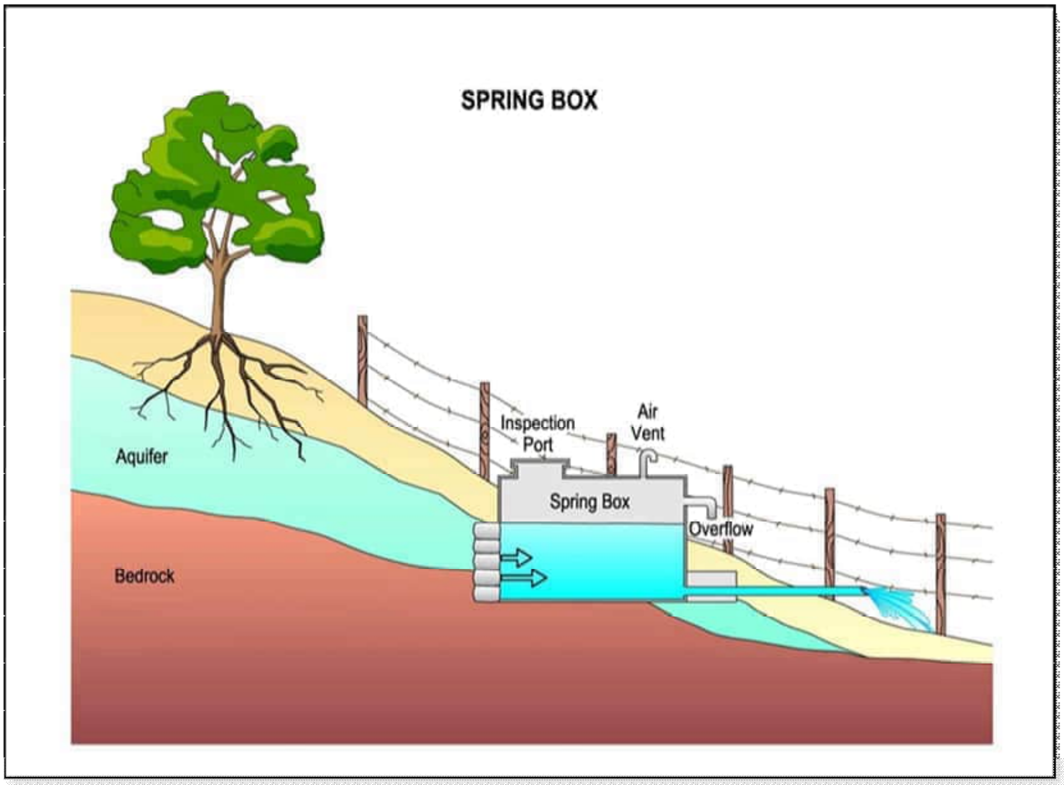
Appendix B Examples of Possible Mitigative Actions

Figure A1. Conceptual Well Design



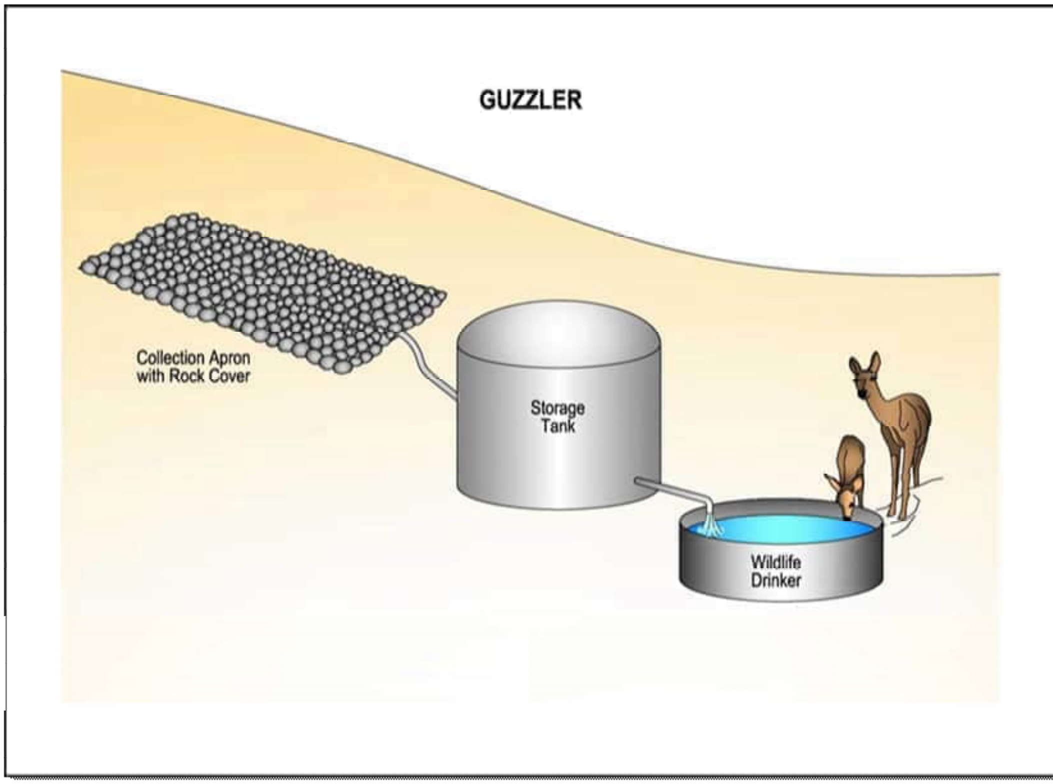
Footnote: Graphic Source Montgomery & Associates (2019)

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)

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