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IN THE SUPREME COURT
OF THE STATE OF NEVADA

EUREKA COUNTY, a political subdivision of the State of Nevada; KENNETH F. BENSON, individually; DIAMOND CATTLE COMPANY, LLC, a Nevada limited liability company; and, MICHEL AND MARGARET ANN ETCHEVERRY FAMILY, LP, a Nevada registered foreign limited partnership, Appellants, v. THE STATE OF NEVADA STATE ENGINEER; THE STATE OF NEVADA DIVISION OF WATER RESOURCES; and KOBEH VALLEY RANCH, LLC, a Nevada limited liability company, Respondents.	**Case No. 61324**
MICHEL AND MARGARET ANN ETCHEVERRY FAMILY, LP, a Nevada registered foreign limited partnership; DIAMOND CATTLE COMPANY, LLC, a Nevada limited liability company; and, KENNETH F. BENSON, individually, Appellants, v. STATE ENGINEER, OF NEVADA, OFFICE OF THE STATE ENGINEER, DPEARTMENT OF CONSERVATION AND NATURAL RESOURCE; and KOBEH VALLEY RANCH, LLC, a Nevada limited liability company, Respondents.	**Case No. 63258** ***(Consolidated with Case No. 61324)*** **JOINT APPENDIX** **VOLUME 2**

APPENDIX SUMMARY

Chronological Order by Filing Date

Document	Filing Date	Vol.	3MJA Page Nos.
Letter from State Engineer Approving 3M Plan	June 6, 2012	I	1
Petition for Judicial Review	July 5, 2012	I	2-35
Lisa Morlan's Affidavit of Service of Notice of Petition for Judicial Review and Petition for Judicial Review	July 18, 2012	I	36-38
State Engineer's Record on Appeal Vol. 1	August 3, 2012	I	39
Vol. 1 - SE ROA Summary SE ROA 39-42		I	39-42
Vol. 1 – SE ROA Conti. SE ROA 43-52		I	42-95
Vol. 1 – SE ROA Conti. SE ROA 53-132		II	96-175
Vol. 1 – SE ROA Conti. SE ROA 133-218		III	176-261
Vol. 1 – SE ROA Conti. SE ROA 219-249		IV	262-292
Vol. 1 – SE ROA Conti. SE ROA 250-251		V	293-294
State Engineer's Record on Appeal Vol. 2	August 3, 2012	V	295
Vol. 2 – SE ROA Summary SE ROA 295		V	295

Document	Filing Date	Vol.	3MJA Page Nos.
Vol. 2 – SE ROA Conti. SE ROA 252-376	August 3, 2012	V	296-420
Vol. 2 – SE ROA Conti. SE ROA 377-448		VI	421-492
State Engineer's Supplemental Record on Appeal	August 15, 2012	VI	493
Supplemental Record Summary SUP SE ROA		VI	493-495
Supplemental Record SUP SE ROA 1-29		VI	495-525
Kobeh Valley Ranch, LLC's Answer to Petition for Judicial Review	August 17, 2012	VI	526-531
Petitioners' Opening Brief	November 5, 2012	VI	532-576
Kobeh Valley Ranch's Answering Brief	Dec. 20, 2012	VI	577-610
State Engineer's Answering Brief	Dec. 20, 2012	VII	611-629
Petitioner's Reply Brief	February 1, 2013	VII	630-646
Transcript of Oral Argument	April 15, 2013	VII	647-719
Findings of Fact, Conclusions of Law, and Judgment	May 17, 2013	VIII	720-736
Petitioners' Notice of Appeal	May 21, 2013	VIII	737-739
Notice of Entry of Findings of Fact, Conclusions of Law, and Judgment	May 23, 2013	VIII	740-761

Document	Filing Date	Vol.	3MJA Page Nos.
Proof of Service of Notice of Entry of Findings of Fact, Conclusions of Law, and Judgment	May 23, 2013	VIII	742

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Alphabetical Order

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Transcript of Oral Argument	April 15, 2013	VII	647-719

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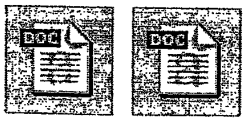

From: Pat Rogers
Sent: Friday, July 29, 2011 3:08 PM
To: Jake Tibbitts; Dale Bugenig
Cc: Elise Hoover; Robert Pennington
Subject: 3M

Jake, Dale,

Attached are two documents to guide our discussion on Tuesday. The first is our mark-up (redline) of the 3M you provided at our last meeting. As we discussed, I also developed a "re-structured" version for you to consider. I think the restructured version contains all the items in the redline, but it is more condensed and, in my opinion, better organized. We can work with either, but I personally believe we will get to the finished product quicker with the restructured one.

In looking at the restructured version, please consider the following:

- We added a section called "Authorities and Participants" to provide a single place to describe membership and roles of those members in the TAC and WAC

- Section II, Item 7 states: "*Therefore, the BLM and NDOW will be invited to participate in this 3M*" We are wide open to discussing this, but it seems like a red flag to identify a party with water right claim within the predicted area of impact and not invite that party in the 3M.

- Purposes and Function of the WAC and TAC (Section 13 D and Section 14 C) are essentially the same as what is in the redline but I think this is an area we should plan to discuss.

- We have really tried to focus on the mechanics of the 3M and as such have deleted a bit of text that might be considered more policy or position. I don't disagree with the statements, just suggest it is more appropriate to include it in a cover letter perhaps, and not

the 3M.

(Specifically, the following was removed: : "... and the Parties' goal in proposing and adopting this 3M, is to assist the NSE in managing development of groundwater resources within and near the Project area to avoid unreasonable impacts to existing water rights of other appropriators or the customary uses of local public resources (e.g., wildlife, grazing forage, recreation), as set forth in Ruling # 6127.

The Parties agree that recommendations concerning the 3M can be based on data collected and analyzed for the Project, from the ongoing USGS study of the Diamond Valley Flow System, from the USGS regional monitoring program, and from other reliable sources. The Parties will collaborate via the WAC and base recommendations on technical data and analyses provided by the TAC.

The Parties acknowledge that pursuant to NRS 534.110(4) each right to appropriate groundwater in the State of Nevada carries with it the right to make a reasonable lowering of the static groundwater level at the appropriator's point of diversion and that pursuant to NRS 534.110(5) the NSE may, at his discretion, allow the groundwater level to be lowered at the point of diversion of a prior appropriator with the provision that rights of holders of existing appropriations can be satisfied under such express conditions.

The Parties expressly acknowledge that the NSE has, pursuant to both statutory and case law, broad authority to administer groundwater resources in the State of Nevada. Nothing contained in this 3M shall be construed as waiving or diminishing such authority."

- I removed a lot of the language that was in the redline under "Monitoring" just because it is already included in the WRMOP. I attached the WRMOP so this forms a complete document. However, I made a few minor edits to the WRMOP just to establish the relation between its use in the 3M versus the POO – these are shown in "track changes"
- Added a section on monitoring to show compliance with the "no water transported out of DV" element of the recent ruling.
- Added a section on proposed mitigation for specific stakeholders that are anticipated to be impacted. This is admittedly somewhat conceptual, and your input is welcome.

Pat

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GENERAL MOLY

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WATER RESOURCES MONITORING, MANAGEMENT, AND MITIGATION PLAN FOR THE MT. HOPE PROJECT UNDER JURISDICTION OF THE NEVADA STATE ENGINEER

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The purpose of this Water Resources

PURPOSE OF THE PLAN

1) This document is prepared with the assistance and cooperation of Eureka County and is to set forth the Monitoring, Management, and Mitigation Plan (Plan) as required by Ruling #6127 of the office of the Nevada State Engineer (NSE) dated July 15, 2011. This Plan is for the proposed Mt. Hope Project (Project). The Plan outlines a process by which adverse impacts may be identified and ultimately mitigated, should they occur. This Plan applies to proposed groundwater extraction rates of up to 11,300 acre-feet per year (af/yr) from Kobeh Valley for mining process water. [[redacted]).] The groundwater would be extracted by EMLLC through Kobeh Valley Ranch, LLC (KVR), both of which are subsidiaries of General Moly, Inc. (GMI), with KVR being the water rights holder. The operator of the Project is EMLLC and it shall be known herein as the "Proponent". The groundwater would be conveyed via pipelines to the mine and mill site. The water use is subject to water right appropriations from the Nevada State Engineer (NSE) and conformance with Nevada State Law concerning adverse impacts to existing water rights and related resources. Additionally, Eureka County has local natural resource, land-use, and water resource policies, plans, and goals developed under Nevada State Law that obligate County leaders to actively participate in the planning and management of resources within Eureka County.

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2) This Plan is intended to provide the necessary data to assess the response of the aquifer(s) to the stress of water-resource exploitation, provide an early warning capability to concerned parties, and provide safeguards for responsible management of water resources, in addition to providing participation by the locally affected stakeholders.

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3) An agency with great importance with respect to this Plan is the U.S. Geological Survey (USGS) (U.S. Dept. of the Interior). It is recognized that

this federal agency is the primary water resources data collection agency in the United States. Through a joint funding agreement with Eureka County, the USGS began studying the Diamond Valley Flow System before the Project was ever proposed. This study is ongoing and provides an additional monitoring system of water and water-dependent resources in close proximity to the Project in Kobeh, Pine, and Diamond Valleys. Participation by USGS in the Planis intended to provide impartial technical and scientific input.

4) The NSE shall have final authority over the Plan and the Proponent will be responsible for the Plan. The NSE, USGS, Proponent, Eureka County, and representatives from locally affected farming and ranching interests will all participate in this Plan. In the event there are other groups who prove to have a vested interest in water resources and this Plan, these groups could be invited to participate. All of the participants that are or become part of this Plan are hereinafter referred to as "Parties".

5) The Bureau of Land Management (BLM) will administer the Plan of Operations of the Project. Further, the BLM administers Federal Public Water Reserves within the area of concern. The BLM will have separate requirements placed on the Proponent according to federal law and agency regulation. The BLM and the Proponent have entered into a stipulated settlement agreement as a condition of the BLM withdrawal of protests of the Proponent's water right applications and the Nevada Department of Wildlife (NDOW) is included as a party to the settlement agreement. This Plan is separate to the requirements placed upon the Proponent by BLM or NDOW. However, in order to avoid unnecessary duplication, this Plan may include BLM and NDOW if there is mutual agreement by all Parties that inclusion of these agencies would meet the overall goals, objectives, and intent of this Plan.

6) [redacted]

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7) The Proponent and the Parites' goal in proposing and adopting this Plan, is to assist the NSE in managing development of groundwater resources within and near the Project area to avoid unreasonable impacts to existing water rights of other appropriators or the customary uses of local public resources (e.g., wildlife, grazing forage, recreation), as set forth in Ruling # 6127.

8) This Plan consists of four principal components:

i. *Management Requirements*, including the creation and role of a Water Advisory Committee (WAC), and a subcommittee of the WAC – the Technical Advisory Committee (TAC), continuation of use and updating of numerical groundwater flow models, establishing action criteria and details of the decision-making and advisory processes;

ii. *Monitoring Requirements*, including systems designed to gather data from production wells, monitoring wells, elevation control, ground subsidence, spring flow, riparian areas, biologic resources, water quality, weather/climate stations, quality of data, and reporting. Incorporated in the development of the monitoring plan would be the inclusion of data from previous monitoring events related to surface water and groundwater resources in and near the Project including, but not limited to, the location of existing supply and monitoring wells, groundwater extraction rates, groundwater level measurements, flow from springs, water quality, precipitation data, and wetland/riparian conditions.

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iii. *Mitigation Measures*, including potential mitigation measures that could be implemented if "unreasonable impacts" occur as a result of groundwater extraction associated with the Project; and

iv. *Modification of Plan*, related to procedures to be followed to modify the Plan if future changing conditions, mitigation effectiveness, or other circumstances warrant modifications.

9) The Parties agree that recommendations concerning the Plan can be based on data collected and analyzed for the Project, from the ongoing USGS study of the Diamond Valley Flow System, from the USGS regional monitoring program, and from other reliable sources. The Parties will collaborate via the WAC and base recommendations on technical data and analyses provided by the TAC.

10) The Parties acknowledge that pursuant to NRS 534.110(4) each right to appropriate groundwater in the State of Nevada carries with it the right to make a reasonable lowering of the static groundwater level at the appropriator's point of diversion and that pursuant to NRS 534.110(5) the NSE may, at his discretion, allow the groundwater level to be lowered at the point of diversion of a prior appropriator with the provision that rights of holders of existing appropriations can be satisfied under such express conditions.

11) The Parties expressly acknowledge that the NSE has, pursuant to both statutory and case law, broad authority to administer groundwater resources in the State of Nevada. Nothing contained in this Plan shall be construed as waiving or diminishing such authority.

MANAGEMENT REQUIREMENTS

Water Advisory Committee (WAC) and Technical Advisory Committee (TAC)

12) Two committees are established to develop policy (the WAC), and to provide the technical scientific expertise (the TAC) necessary to assure impartiality with respect to collection, evaluation and analysis of data. Separation of the roles and responsibilities of these two bodies is crucial to

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maintaining scientific impartiality of the data collection and analysis program.

A. **Water Advisory Committee.** A Water Advisory Committee (WAC) will be established with one member from each Party as identified in Section 4 above. Initially, the Proponent, NSE, and Eureka County representatives will convene and establish procedure for invitation and inclusion of representatives of others into the WAC, as discussed in Section 4. As the Plan is implemented and the procedures refined, the WAC may also decide to include representatives of other potentially affected water rights holders and interests. A representative of the NSE would be invited to participate as the chair of the WAC. If the NSE representative declines this invitation, the WAC will elect the chairman by majority vote.

1. After the full WAC has been convened, the WAC will establish operating guidelines for specific actions, including scheduling of meetings, agenda setting, minute/note taking, detailing roles and responsibilities of WAC and TAC, and any other necessary operational components. The guidelines for any specific actionswill be consistent with Nevada Water Law, the requirements of the NSE and the terms and provisions of this Plan.

B. **Technical Advisory Committee.** The WAC will create a Technical Advisory Committee (TAC) as a subcommittee to the WAC. Each Party represented on the WAC will be able to appoint one TAC member. TAC members must exhibit a level of technical or scientific understanding and a background or experience in land, natural resource or water resource field. The WAC will develop criteria for membership in the TAC when outlining the operational guidelines noted in B above. The USGS will be invited to participate as a member of the TAC. Other TAC members may be appointed by the WAC in addition to the individual TAC members representing each Party.

C. The WAC will meet no less than one time in each quarter starting at the execution of this Plan and through the first year of Project groundwater extraction. Subsequent meeting frequency may be adjusted as mutually agreed upon by the WAC, but must be no less than once annually.

D. The TAC will meet within 2 months after WAC appointment to review the Proponent's proposed Mount Hope Mine Project Water Resources

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Monitoring Plan (WRMoP) included in the EIS and the Plan of Operations to make recommendations for changes (if any) and implantation of the monitoring components of this Plan. Thereafter, the TAC will meet at intervals deemed appropriate by the TAC to review and analyze data.

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13) **Purposes and functions of the WAC will be to:**

A. Provide a public forum for local area stakeholders to discuss relevant data and analyses.

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B. Share information regarding modeling efforts and model results, if used as part of the monitoring and management program.

C. Discuss needs for additional data collection and scientific investigations as recommended by the TAC.

D. Provide status reports and recommendations to the Parties.

E. Form recommendations for groundwater management actions based on reports from the TAC.

F. Recommend values for monitored variables (water levels, spring discharges, vegetation responses, etc.) known as "action criteria" or "triggers," which, if exceeded, may be of concern to the Parties and could require mitigation. The values will be based on evaluations of historic hydrologic conditions and trends and current monitoring and analyses under this Plan as reported and/or recommended by the TAC.

G. Determine what constitutes an "unreasonable impact" on a case-by-case basis for management consideration by the appropriate authority.

H. Provide the NSE, Parties, and the local stakeholder with results of any analyses or technical evaluations, along with recommendations for specific mitigation.

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14) **Purposes and functions of the TAC will be to:**

A. Review the proposed Project WRMoP and recommend implementation as appropriate.

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B. Review historic groundwater level trends, spring and creek flows to determine historic hydrologic trends. Where possible, identify wet and dry regimes, climate effects on groundwater recharge rates and base flows in surface waters. Where possible, identify critical lows for detrimental impacts on habitat and resource sustainability.

C. Review/develop/refine standards and quality control procedures for data collection, management and analysis.

D. Evaluate monitoring data, reports, analyses, etc. to determine whether data gaps exist and make appropriate recommendations to the WAC.

E. Evaluate all monitoring data to determine if any action criterion or trigger has been exceeded, indicating a possible unreasonable impact and report findings to the WAC.

(MAKE A "SPECIFICS" SECTION FOR 15,16 and 17???)

15) **Numerical Ground-Water Flow Modeling**

A. Observed water levels will be compared to predictions made by the numerical groundwater flow model prepared for the Project. The TAC will recommend when the numerical groundwater flow model should be updated for use in predicting future impacts.

B. The TAC will make recommendations to the Proponent of the most useful mode of model output to be generated for analysis.

16) **Action Criteria**

A. Specific quantitative criteria ("action criteria") will be developed by the WAC, based on data analyses provided by the TAC, and recommended to the NSE for possible use to "trigger" management or mitigation actions.

B. These action criteria will be developed to provide early warning of unreasonable impacts to locally important public resources, uses and water rights of other appropriators. These criteria will be based on changes in any of the monitored resources that can be attributed to groundwater extraction by the Mt. Hope Project.

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- **Comment [p3]:** Need to follow proposed flow – TAC recommends, then WAC recommends.
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- **Comment [p4]:** Again, [illegible] isn't the standard flow to be: TAC forwards a recommendation to the WAC for consideration. Once WAC makes recommendation, SE [illegible] decides whether to act on it?
- **Deleted:** <#>Based upon TAC recommendation, the model output may be in the form of drawdown maps at appropriate intervals, plots of simulated and observed water levels for the aquifer systems, results of model calibration, or other outputs as requested by the NSE or WAC. The TAC will provide scientific review of modeling updates and hydrogeologic assumptions. ¶
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C. If and when any action criterion that has been approved and adopted by the NSE is reached, the following management actions will be triggered:

a. The TAC will assess whether the action criteria exceedence is a result of groundwater extraction by the Project and present their findings to the WAC

b. If the WAC agrees, based on information from the TAC, that any action criterion exceedance is attributable to groundwater extraction by the Project, the WAC will direct the TAC to develop mitigation actions for recommendation to the WAC
The TAC will analyze other potential impacts that may arise due to implementation of the mitigation measure itself.

c. The WAC members will determine whether or not to recommend implementation of the recommended mitigation actions. The NSE will make the final decision on mitigation and will determine whether any action implemented serves to mitigate the impact.

a. In the event that action criteria (level??) exceedences are determined by the WAC to be unrelated to Project operations, the WAC will provide that determination to the NSE.

D. Any member of the WAC may propose a change to any action criterion. Any such change must be presented in writing to the WAC, and accompanied by data and scientific analyses to support the proposed change. If the supporting analyses are found to be technically sound by the TAC, then the WAC may recommend to the NSE that the action criterion be adjusted, as appropriate.

E. Any final action taken or decision made by the NSE shall be subject to the provisions of applicable Nevada Water Law.

17) **Decision-Making Process**

A. The WAC shall make decisions by unanimous vote. If unanimity is not achieved the Parties may jointly agree to conduct additional data collection and/or data review and analyses directed at resolving the different interpretations or opinions, if possible. If that is not successful, the Parties may refer the issue to their respective managers and the NSE. Nothing herein limits or changes the NSE authority, and any Party can petition the NSE to consider the issue.

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MONITORING REQUIREMENTS (Parts 18 through 29)

18) The EIS and hydrological studies for the Project contain information about water resources data in Kobeh Valley, Diamond Valley, Pine Valley, and surrounding areas. This information includes location of existing and proposed supply and monitoring wells, groundwater extraction rates, groundwater level measurements, flow from springs, estimates of stream flow, water quality, precipitation data, and wetland/riparian conditions. This information, as well as additional data relevant to the Project available from other local, state, and federal agencies or other reliable sources, will be compiled into a central database by the Proponents and expanded as new data are collected under this Plan.

19) The initial, monitoring plan proposed as a starting point for the WAC and TAC to consider is attached hereto as Attachment A.

20) The cost of project-specific monitoring under this Plan, as recommended or agreed to by the WAC, based upon technical recommendations of the TAC, and approved and adopted by the NSE including costs to set up the monitoring network and those associated with data collection, compilation of data into a central database, and maintenance of the dataset, will be the borne by the Proponent. The USGS (or other) monitoring network will supplement, rather than replace, individual Project monitoring. It is recognized that the USGS or other Parties may maintain monitoring sites that duplicate those included in this Plan at their own discretion and cost.

21) The term "as is feasible" as used in this Plan relates to mechanical failures or other events/reasons outside the control of the Parties, or agreed upon by the Parties, that interfere with data collection.

22) **Quality of Data**

A. The TAC will ensure that the entity or entities that collect water resources data are informed of and follow standard accepted protocols of data collection, recording and analysis (e.g., USGS). The TAC will review the data for quality control and assurance before they are presented to the WAC. If any data discrepancies or issues are found by the TAC during the quality

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In the event that any of the Parties disagree as to whether the Proponent's ongoing or proposed groundwater extractions are resulting or will result in unreasonable impacts, any Party may petition the NSE to request that the NSE determine whether there is or is not adverse impact(s) that require implementation of management or mitigation measures.

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control review, the TAC will document the issues and recommend changes for the WAC to consider.

B. The water quality sampling program will include standard accepted field and laboratory quality control procedures.

23) **Production Wells**

A. Discharge rates and groundwater levels will be measured in all production wells on a continuous basis, as is feasible, using permanent recording devices. Water levels will be measured during pumping and non-pumping periods.

B. Production well monitoring data will be entered into the Project database.

24) **Monitoring Wells**

A. A network of monitoring wells and parameters will be used to measure groundwater levels over time.

B. Groundwater levels will be measured continuously, as is feasible, using permanent recording devices. For any monitoring wells without continuous monitoring instruments, water levels will be measured on at least a quarterly basis to establish seasonal variations or as recommended by the TAC to the WAC.

C. The TAC may recommend to the WAC that new monitoring well(s) be installed in key areas where there are no existing wells available for monitoring or where more monitoring is determined to be necessary. The network shall include "sentinel" wells located near the boundary between Kobeh Valley and Diamond Valley. Additional sentinel wells may be recommended to be installed or included to monitor sensitive and important water resources (e.g., headwaters of Henderson Creek, Roberts Creek, Gravel Pit Spring, Bartine artesian wells, stock wells at Hay Ranch) to provide early-warning detection of impacts in these areas arising from the Project's groundwater extractions. Consideration will be given to completing nested wells that monitor individual aquifers at a single location where more than one hydrostratigraphic unit is present or strong vertical gradients may exist. The Proponent will be responsible for completing any

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new monitoring well(s)that are agreed upon, unless another member of the Parties agrees to complete the well(s).

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D. Test wells constructed at each production well site will be maintained as monitoring wells and equipped with recording pressure transducers. Initially, water levels in these test wells will be measured continuously. Monitoring frequency may be reduced according to TAC recommendations to the WAC only after the high-frequency data have provided a comprehensive stress test of the aquifer for comparison with projected well-field performance during the early stages of the Project's well-field water extractions.

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E. Several USGS monitoring wells are located near the proposed well field and within the projected extent of water drawdown contour after 44 years of operation. If the USGS is not funded to monitor these specific wells, permission to collect data should be requested from the USGS. If permission cannot be obtained, the WAC will seek an evaluation by the TAC for any new well installations.

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F. Although some baseline data have already been collected, initiation of groundwater level monitoring in this Plan should commence as soon as possible, recognizing the desire to obtain as much baseline data as possible prior to groundwater extraction. The WAC will convene within 60 days after a ruling on the Project's water appropriations by the NSE to appoint the TAC and to move forward with implementation of data collection under this Plan.

G. Locations and measurement frequency of the monitoring well network will be reviewed by the TAC and may be reduced or expanded in scope upon a TAC recommendation to the WAC.

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H. All groundwater-level monitoring data will be entered into the Project database on a regular basis, reflecting the monitoring interval chosen, based upon TAC recommendations to the WAC.

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25) **Elevation Control**

A. Ground surface and measuring point elevations that may be established will use survey-grade GPS instrumentation at production and monitoring well sites included in this Plan. Elevations for surface water and spring

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monitoring locations will also be recommended to WAC. A standard GPS data collection protocol (i.e. common geographic datum) will be used to allow a comparative base for all elevation associated data including the possibility of the occurrence of subsidence due to groundwater extraction. Augmenting subsidence monitoring with remote sensing technologies (e.g. InSAR, Lidar) may be recommended by the TAC to the WAC.

B. Elevation measurements may be added to the Project database that contains Project data based upon TAC recommendations to the WAC.

26) **Surface Waters, Riparian Areas, and Biological Resources**

A. Monitoring locations and parameters of surface waters, riparian areas, and other biological resources will be initially proposed by the Proponent in the WRMoP as noted above. These proposed monitoring locations and parameters may be changed as a result of TAC recommendation to the WAC.

BSelected springs and associated riparian areas will be monitored in Kobeh Valley, Diamond Valley, Pine Valley, and additional surrounding valleys that may be affected by groundwater extraction based upon TAC recommendation to the WAC. Monitoring may consist of measuring spring discharge rate, photo-documenting general site conditions, and conducting proper functioning condition (PFC) assessments or Multiple Indicator Monitoring (MIM) of riparian areas. Monitoring locations, parameters, and/or frequency may be adjusted according to the procedures in this Plan.

CThe flow of perennial streams from the Roberts Mountains may be monitored as a result of TAC recommendation to the WAC. The locations may include Roberts Creek and Coils Creek in Kobeh Valley and Henderson, Vinini, Pete Hansen, Denay and Pine Creek in Pine Valley. Agreed upon monitoring shall commence as soon as possible to ensure that background data have been collected prior to commencing groundwater extractions. The TAC shall consider the following when making monitoring recommendations to the WAC:

a. Monitoring should include continuous measurements of stream stage at selected control sections for each stream where feasible.
b. The geometry of the control sections should be surveyed at the start of monitoring and re-surveyed at least annually.

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c. Stage measurements should be collected with recording pressure transducers on a frequency of not less than one hour.
d. The flow in the streams at the control sections should be gaged monthly for the first year of record to establish stage-discharge relationship for each gaging station.
e. Following the first year of gaging, stream-flow measurements should be collected at least quarterly.
f. Flow data should be recorded at least quarterly and hydrographs updated at least annually.

DMonitoring of vegetation, including phreatophyte vegetation, riparian zones, and other vegetation communities will be done according to the procedures and frequency recommended by the TAC to the WAC in Kobeh Valley, Diamond Valley, Pine Valley, and some surrounding valleys that may be affected by groundwater extraction. Data will be collected in a variety of ways and may include on-site measurement of vegetation cover, frequency, and type. Remote sensing may be employed to help define and monitor the extent of vegetation communities at a larger spatial scale. The purpose in collecting vegetation data is to assist in considering reasons for groundwater levels and corresponding changes in vegetation and the uses reliant on this vegetation (i.e. recreation, grazing livestock, and wildlife).

EIn addition to data that have already been collected, initiation of monitoring for springs, riparian areas, and biotic variables will commence as soon as possible, recognizing the desire to obtain baseline data prior to groundwater extraction. Monitoring data will be recorded using a standard accepted protocol (i.e., USGS) for each monitoring event as recommended by the TAC to the WAC.

FAll surface water, riparian area, and biological monitoring data will be entered into the project database on a regular basis, reflecting the monitoring interval chosen based on TAC recommendation to the WAC.

27) **Water Quality**

A. Locations and parameters of water quality sampling will be initially proposed by the Proponent in the WRMoP as noted above. These proposed monitoring locations and parameters may be changed as a result of TAC recommendations to the WAC.

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B. Water quality samples will be collected from selected production and monitoring wells and surface waters and analyzed by a laboratory, using standard accepted protocols (i.e., USGS) and a standard water test for groundwater wells and State surface water quality standards. Macroinvertebrate monitoring will take place in select streams as an indicator of general stream and/or fishery health. Schedule of sample collection and list of parameters will be recommended by TAC to the WAC.

C. Frequency, sampling location, and water quality parameters will be reviewed by the TAC on at least an annual basis, and may be reduced or expanded in scope upon its recommendation to the WAC.

D. All water quality monitoring data will be entered into the project database on a regular basis, with the interval determined by the WAC after recommendation by TAC.

28) **Weather/Climate Stations**

A. Weather/Climate stations shall be maintained to continuously monitor wind speed and direction, precipitation, temperature, barometric pressure, humidity, and solar radiation. These stations will be established, as is feasible, in areas where monitoring data are being collected. Existing precipitation stations may be used where possible. The purpose of collecting weather/climate data is to have a basis for suggesting whether changes in groundwater levels are due to changes in weather or climate. Station sites and parameters will initially selected by the Porponent and may be changed as a result of TAC recommendations to the WAC.

B. All precipitation data will be entered into the Project database based on TAC recommendation to the WAC.

29) **Reporting**

A. All data collected under or as described in this Plan will be uploaded to the Project database and will be fully and cooperatively shared among the Parties. Data will become available to the public, upon request, after appropriate QA/QC evaluation procedures (i.e. USGS) have confirmed their accuracy and the WAC has accepted the data as "final" and approved the public release of the data.

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B. In addition to updating the Plan database on a regular basis, an annual summary report will be prepared under direction of and in cooperation with the TAC that summarizes all information collected during the previous calendar year, including an analysis of any trends. These reports will be provided to the WAC for annual assessment of impacts to water and water dependent resources resulting from groundwater extraction of the Project.

30) **MITIGATION MEASURES**

A. The Proponent will mitigate unreasonable impacts either as agreed upon by the Parties or after the NSE determines whether there are unreasonable impacts due to Project groundwater extraction. The Parties will take necessary steps to ensure that mitigation actions are feasible and reasonable. An analysis of the feasibility of specific mitigation measures will be performed to assess alternatives, evaluate the potential effectiveness of the measures, and to evaluate potential impacts created by implementation of mitigation measures.

B. To ensure funding exists for any required future mitigation, including mitigation after the cessation of active mining activities, the Proponent must demonstrate the financial capability to complete any mitigation work. This may include a bond, escrow, or trust account established by the Proponent (including its parent company, EMMLC) to fund possible mitigation actions. This provision is to assure that mitigation will take place even after operations of the Project cease as some impacts may be delayed and emerge years after groundwater pumping starts and/or ceases. The WAC shall make recommendations to the NSE for the account.

1. The Proponent warrants and affirms these obligations and that it has the financial capability to comply with the condition imposed the NSE in Rulint # 6127, Proponent agrees to supply the NSE on an annual basis, audited financial statements of its parent company, EMMLC.

C. Mitigation measures, including provisions for funding, will be developed to comply with the requirements of Ruling # 6127 and the possible impacts discussed in the Ruling. Analysis of the feasibility of specific mitigation measures will be performed to assess alternatives, evaluate the potential effectiveness of the measures, and to evaluate potential impacts arising from implementation of mitigation measures:

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a. Adjust carbonate/alluvium groundwater pumping ratio. Supply water will be provided from wells located in Kobeh Valley that are completed in the carbonate and in the alluvial aquifers and supplemented by dewatering wells surrounding the mine pit. Pumping of these different aquifers will have different impacts to the groundwater and surface water flow systems. Should monitoring indicate that impacts could be reduced by decreasing the pumping amount from these aquifers, the pumping ratio could be adjusted;

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b. Reduction or cessation of groundwater extraction from one or more wells and/or geographic redistribution of groundwater extraction. Impacts can be greatly influenced by the specific location of stressors (i.e. pumping wells). Abandonment of some specific well or wells and replacing them with wells at new locations may ameliorate these impacts;

c. Restoration/modification of existing habitat or establishment of new habitat. Impacts from decreased surface flows (i.e. habitat loss) may be mitigated by improving wildlife habitat using a variety of means. These measures may include installation of watering guzzlers or establishment of vegetation communities requiring less water. Also, establishment of replacement habitat at a new location (i.e. off-site mitigation) may mitigate impacted habitats;

d. Augmentation of water resources with groundwater extracted by the Project. Alternative sources may be provided to enhance or replace existing sources. For example, replacement wells may be drilled if lowering of groundwater impacts an existing groundwater right or water could be obtained from alternate sources and discharged to the surface to mitigate decreased surface water flows. If livestock water sources are impacted, it should be ensured that augmented or replacement water sources are coordinated with the grazing permittees season-of-use;

e. Purchase other water rights in good standing in the area that are actively used, if available. The acquisition of water rights that are not in use is discouraged. Any impact to individual water rights attributable to the Project could be compensated financially. If basin-wide recharge impacts are attributable to the Project, active and

current water rights could be purchased and retired to help re-balance the appropriated amounts with actual recharge;

f. Implement technology to reduce fresh-water consumption of the Project. Pumping rates may be decreased if alternative technology emerges that could reduce water requirements or increase water recycling rates. Water conservation techniques should be proactively employed as to reduce other mitigation measures (i.e. before any impact is measured);

g. Other measures as agreed to by the Parties and/or required by the NSE.

h. In the event any Party disagrees as to whether or not the Proponent's ongoing or proposed groundwater extractions are resulting in or will result in unreasonable impacts, the Party may ask the WAC to petition the NSE to request that the NSE determine whether or not there is or is not an unreasonable impact that requires implementation of mitigation measures. The WAC shall make its decision by unanimous vote.

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31) MODIFICATION OF THE PLAN

The Parties may modify this Plan by mutual written agreement. The Parties also acknowledge that the NSE has final authority over this Plan and the right to modify this Plan. In addition, the Parties may individually or jointly petition the NSE to modify this Plan in the event that mutual agreement cannot be reached. Any such petition shall only be filed after 90 days written notice to the remaining Party members. Any Party member, including the Proponent, may submit written comments to the NSE regarding the merits of any such petition for modification.

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ATTACHMENT A

PROPONENT PROPOSED WRMoP

WATER RESOURCES MONITORING, MANAGEMENT, AND MITIGATION PLAN FOR THE MT. HOPE PROJECT UNDER JURISDICTION OF THE NEVADA STATE ENGINEER

I. PURPOSE OF THE PLAN

1. This document sets forth the Monitoring, Management, and Mitigation Plan (3M) for the Mt. Hope Project (Project) as required by Ruling #6127 of the office of the Nevada State Engineer (NSE) dated July 15, 2011. The 3M outlines a process by which adverse impacts may be identified and ultimately mitigated, should they occur. This 3M applies to proposed groundwater extraction rates of up to 11,300 acre-feet per year (af/yr) from Kobeh Valley for mining process water. The groundwater extracted will be consumed in activities related to the Project including mineral processing and mine dust control. The groundwater would be extracted by EMLLC through Kobeh Valley Ranch, LLC (KVR), both of which are subsidiaries of General Moly, Inc. (GMI), with KVR being the water rights holder. The operator of the Project is EMLLC. The groundwater would be supplied primarily from a wellfield in Kobeh Valley and conveyed via pipelines to the mine and mill site. In addition, groundwater extraction would include open pit dewatering at rates up to a predicted maximum of 742 af/yr within Kobeh Valley (20%) and Diamond Valley (80%).

2. This document is prepared with the assistance and cooperation of Eureka County.

3. This 3M is intended to provide the necessary data to assess the response of the aquifer(s) to the stress of water-resource exploitation, provide an early warning capability to concerned parties, and provide safeguards for responsible management of water resources.

II. AUTHORITIES AND PARTICIPANTS

4. The NSE shall have final authority over the 3M and EMLLC will be responsible for implementing and complying with, the 3M.

5. This 3M is intended to provide participation and transparency to the locally affected stakeholders. Therefore, Eureka County, and representatives from locally affected farming and ranching interests will

be invited to participate in this 3M. In the event there are other groups who prove to have a vested interest in water resources and this 3M, these groups could be invited to participate.

6. The USGS would be invited to participate by providing impartial technical and scientific input.

7. This 3M is separate to the requirements placed upon EMLLC by BLM or NDOW. However, the Bureau of Land Management (BLM) claims Federal Public Water Reserves within the area of concern. The BLM and EMLLC have entered into a stipulated settlement agreement as a condition of the BLM withdrawal of protests of EMLLC's water right applications and the Nevada Department of Wildlife (NDOW) is included as a party to the settlement agreement. Therefore, the BLM and NDOW will be invited to participate in this 3M.

8. All of the participants in this 3M are hereinafter referred to as "Parties".

III. THREE PRINCIPAL COMPONENTS

9. **Management Component:** Consists of the creation and role of a Water Advisory Committee (WAC), and Technical Advisory Committee (TAC). The management component also includes procedures to be followed to modify the 3M if future changing conditions, mitigation effectiveness, or other circumstances warrant modifications

10. **Monitoring Plan Component:** Consists of systems designed to gather data from production wells, monitoring wells, elevation control, ground subsidence, spring flow, riparian areas, biologic resources, water quality, weather/climate stations, quality of data, and reporting. Incorporated in the monitoring plan component would be the development of a data base to include data collected under this 3M, data from previous monitoring events conducted by EMLLC, and data from other publicly available monitoring reports.

11. **Mitigation Component:** Includes potential mitigation measures that could be implemented if "unreasonable impacts" occur as a result of groundwater extraction associated with the Project.

IV. MANAGEMENT

12. Two committees are established to make recommendations regarding modifications of the 3M and implementation of mitigation (the WAC), and to provide the technical scientific expertise necessary to assure impartiality with respect to collection, evaluation and analysis of data (the TAC). Separation of the roles and responsibilities of these two bodies is considered crucial to maintaining scientific impartiality of the data collection and analysis program.

13. **Water Advisory Committee:**

A. A Water Advisory Committee (WAC) will be established with one member from each Party. Initially, EMLLC, NSE, and Eureka County representatives will convene and establish procedure for invitation and inclusion of the other Parties, with the exception of the USGS, into the WAC. The WAC may also invite other potentially affected water rights holders and interests to participate. A representative of the NSE would be invited to participate as the chair of the WAC. If the NSE representative declines this invitation, the WAC will elect the chairman.

B. After the full WAC has been convened, the WAC will establish Operational Guidelines (OG) for specific actions, including scheduling of meetings, agenda setting, minute/note taking, detailing roles and responsibilities of WAC and TAC, and any other necessary operational components. The OG will be consistent with Nevada Water Law, the requirements of the NSE and the terms and provisions of this 3M.

C. The WAC will meet no less than one time in each quarter starting at the execution of this 3M and through the first year of Project groundwater extraction. Subsequent meeting frequency

may be adjusted as mutually agreed upon by the WAC, but will be no less than once annually.

D. Purposes and Functions of the WAC will be to:
   i. Provide a public forum for Parties to discuss relevant data and analyses.
   ii. Share information regarding modeling efforts and model results.
   iii. Make recommendations for modifications to the Monitoring Pan component of this 3M, including, but not limited to additional data collection and scientific investigations, as recommended by the TAC.
   iv. Provide status reports and recommendations to the Parties.
   v. Form recommendations for groundwater management actions based on reports from the TAC.
   vi. Recommend values for monitored variables (water levels, spring discharges, vegetation responses, etc.) known as "action criteria" or "triggers," which, if exceeded, may be of concern to the Parties and could require mitigation. The values will be based on evaluations of historic hydrologic conditions and trends and current monitoring and analyses under this 3M as reported and/or recommended by the TAC.
   vii. Make recommendations on what constitutes an "unreasonable impact" on a case-by-case basis.
   viii. Provide the NSE, Parties, and the local stakeholder with results of any analyses or technical evaluations, along with recommendations for specific mitigation.

14. **Technical Advisory Committee:**

A. The WAC will create a Technical Advisory Committee (TAC) as a subcommittee to the WAC. Each Party represented on the WAC will be able to appoint one TAC member. In addition, the USGS will be invited to participate as a member of the TAC. TAC members must exhibit a professional level of technical or scientific expertise and a background or experience

in land, natural resource or water resource field. The WAC will develop criteria for membership in the TAC under its Operational Guidelines. Other TAC members may be appointed by the WAC in addition to the individual TAC members representing each Party.

B. The TAC will meet within 2 months after WAC appointment to review EMLLC's Mount Hope Mine Project Water Resources Monitoring Plan (WRMoP) included in the EIS and the Plan of Operations, and provided as Attachment A to this 3M. Upon completing this review, the TAC will make recommendations for changes (if any) to the monitoring components of this 3M. Thereafter, the TAC will meet at intervals deemed appropriate by the TAC to review and analyze data

C. Purposes and Functions of the TAC will be to:

i. Review the proposed Project WRMoP and recommend implementation, including any changes to the specific monitoring elements in the WRMOP, as appropriate.
ii. Review historic groundwater level trends, spring and creek flows to determine historic hydrologic trends. Where possible, identify wet and dry regimes, climate effects on groundwater recharge rates and base flows in surface waters. Where possible, identify critical lows for detrimental impacts on habitat and resource sustainability.
iii. Review/develop/refine standards and quality control procedures for data collection, management and analysis.
iv. Ensure that the entity or entities that collect water resources data are informed of and follow standard accepted protocols of data collection, recording and analysis (e.g., USGS)
v. Evaluate monitoring data, reports, analyses, etc. to determine whether data gaps exist and make appropriate recommendations to the WAC.
vi. Evaluate all monitoring data to determine if any action criterion or trigger has been exceeded, indicating a

possible unreasonable impact and report findings to the WAC.

vii. Make recommendations regarding the numerical groundwater flow model, including appropriate times for model updates and the most useful modes of model output.

15. **Action Criteria:**

A. Specific quantitative criteria ("action criteria") will be developed by the WAC, based on data analyses provided by the TAC, and recommended to the NSE for possible use to "trigger" management or mitigation actions.

B) These action criteria will be developed to provide early warning of unreasonable impacts to locally important public resources, uses and water rights of other appropriators. These criteria will be based on changes in any of the monitored resources that can be attributed to groundwater extraction by the Mt. Hope Project.

C) If and when any action criterion that has been approved and adopted by the NSE is reached, the following management actions will be triggered:

i) The TAC will assess whether the action criteria exceedence is a result of groundwater extraction by the Project and present their findings to the WAC.

ii) If the WAC agrees, based on information from the TAC, that any action criterion exceedance is attributable to groundwater extraction by the Project, the WAC will direct the TAC to develop mitigation actions for recommendation to the WAC. The TAC will analyze the feasibility of specific mitigation measures to assess alternatives, evaluate the potential effectiveness of the measures, and evaluate potential impacts created by implementation of mitigation measures.

iii) The WAC members will determine whether or not to recommend implementation of the recommended mitigation actions. The NSE will make the final decision on mitigation.

iv) In the event that action criteria exceedences are determined by the WAC to be unrelated to Project operations, the WAC will provide that determination to the NSE

D) Any member of the WAC may propose a change to any action criterion. Any such change must be presented in writing to the WAC, and accompanied by data and scientific analyses to support the proposed change. If the supporting analyses are found to be technically sound by the TAC, then the WAC may recommend to the NSE that the action criterion be adjusted, as appropriate.

16. **Decision-Making Process:**

i. For technical issues, including, but not limited to monitoring plan modifications, setting action levels, and appropriate mitigation, decisions will be made in consideration of the evaluation and recommendations of the TAC.

ii. The WAC shall make decisions by unanimous vote. If unanimity is not achieved the Parties may jointly agree to conduct additional data collection and/or data review and analyses directed at resolving the different interpretations or opinions, if possible. If that is not successful, the Parties may refer the issue to their respective managers and the NSE.

iii. Decisions made by the WAC regarding changes to the 3M, implementation of mitigation, or other action that would be required of EMLLC will be provided to the NSE as recommendations. The NSE would consider the WAC recommendations and determine whether to require EMLLC to conduct such actions. Nothing herein

limits or changes the NSE authority, and any Party can petition the NSE to consider the issue.

IV. MONITORING

17. The EIS and hydrological studies for the Project contain information about water resources data in Kobeh Valley, Diamond Valley, Pine Valley, and surrounding areas. This information includes location of existing and proposed supply and monitoring wells, groundwater extraction rates, groundwater level measurements, flow from springs, estimates of stream flow, water quality, precipitation data, and wetland/riparian conditions. This information, as well as additional data relevant to the Project available from other local, state, and federal agencies or other reliable sources, will be compiled into a central database by EMLLCs and expanded as new data are collected under this 3M.

18. The proposed monitoring plan is provided as Attachment A to this 3M. This monitoring plan, titled *Water Resources Monitoring Plan* (WRMOP) was developed as a stand-alone document to describe the monitoring that will be conducted to meet BLM monitoring requirements, and is incorporated into the Mt Hope Plan of Operations. This WRMOP is proposed to meet the requirements of the NSE for this 3M. Upon acceptance by the NSE, EMLLC will implement this WRMOP. As described in the Management section of this 3M, the TAC will review this WRMOP and provide recommendations regarding changes and/or implementation. In addition to this initial review, the TAC may review the WRMOP and make recommendations for changes throughout the project life based on monitoring data. Such recommended changes may include, but not be limited to addition or deletion of monitoring sites, addition or deletion of monitoring parameters, changes to monitoring methods, and increases or decreases in monitoring frequencies. EMLLC will adopt and implement changes to the monitoring requirements (WRMOP) upon direction from the NSE.

19. The term "as is feasible" as used in the WRMOP relates to mechanical failures or other events/reasons outside the control of the Parties, or agreed upon by the Parties, that interfere with data collection.

20. The monitoring network shall include "sentinel" wells located near the boundary between Kobeh Valley and Diamond Valley. Additional sentinel wells may be recommended to be installed or included to monitor sensitive and important water resources (e.g., headwaters of Henderson Creek, Roberts Creek, Gravel Pit Spring, Bartine artesian wells, stock wells at Hay Ranch) to provide early-warning detection of impacts in these areas. Consideration will be given to completing nested wells that monitor individual aquifers at a single location where more than one hydrostratigraphic unit is present or strong vertical gradients may exist.

21 Test wells constructed at each production well site will be maintained as monitoring wells and equipped with recording pressure transducers. Initially, water levels in these test wells will be measured continuously.

22 Several USGS monitoring wells are located near the proposed well field and within the projected extent of water drawdown contour after 44 years of operation. If the USGS is not funded to monitor these specific wells, EMLLC will request permission to collect data from these wells. If permission cannot be obtained, the WAC will seek an evaluation by the TAC for any new well installations.

23 All monitoring data will be entered into the Project database on a regular basis, reflecting the monitoring interval.

24. Ground surface and measuring point elevations that may be established will use survey-grade GPS instrumentation. A standard GPS data collection protocol (i.e. common geographic datum) will be used to allow a comparative base for all elevation associated data including the possibility of the occurrence of subsidence due to groundwater extraction.

25. Augmenting subsidence monitoring with remote sensing technologies (e.g. InSAR, Lidar) may be recommended by the TAC.

26. The flow of perennial streams will be monitored as described in the WRMOP. Flow monitoring will be conducted in consideration of the following:

A. Monitoring should include continuous measurements of stream stage at selected control sections for each stream where feasible.
B. The geometry of the control sections should be measured at the start of monitoring and re-measured at least annually.
C. Stage measurements should be collected with recording pressure transducers on a frequency of not less than one hour.
D. The flow in the streams at the control sections should be gaged monthly for the first year of record to establish stage-discharge relationship for each gaging station.
E. Following the first year of gaging, stream-flow measurements should be collected at least quarterly.
F. Flow data should be recorded at least quarterly and hydrographs updated at least annually.

27. Monitoring of vegetation, including phreatophyte vegetation, riparian zones, and other vegetation communities will be conducted at locations described in the WRMOP. These locations may be expanded to include additional sites in Kobeh Valley, Diamond Valley, Pine Valley, and some surrounding valleys that may be affected by groundwater extraction. Data will be collected in a variety of ways and may include on-site measurement of vegetation cover, frequency, and type. Remote sensing may be employed to help define and monitor the extent of vegetation communities at a larger spatial scale.

28. Weather/Climate stations shall be maintained to continuously monitor wind speed and direction, precipitation, temperature, barometric pressure, humidity, and solar radiation. Existing precipitation stations may be used where possible. The purpose of collecting weather/climate data is to have a basis for suggesting whether changes in groundwater levels are due to changes in weather or climate

29. Data collected under or as described in this 3M will be uploaded to the Project database and will be fully and cooperatively shared among the Parties. Data will become available to the public, upon request, after appropriate QA/QC evaluation procedures (i.e. USGS) have confirmed their accuracy and the PM has accepted the data as "final" and approved the public release of the data.

30. In addition to updating the 3M database on a regular basis, an annual summary report will be prepared under direction of and in cooperation with the TAC that summarizes all information including an analysis of any trends. These reports will be provided to the WAC for assessment of impacts to water and water dependent resources resulting from groundwater extraction of the Project.

31. Groundwater extraction amounts will be measured by flowmeters installed on each production well, dewatering well and pit dewatering sump. This data will be compiled in the annual reports to demonstrate compliance with the 11,300 afa limit established by Ruling #6127.

32. Groundwater could be removed from the Diamond Valley basin either by wells or pit dewatering sumps. To determine the amount of pit dewatering water that is derived from Diamond Valley, the total groundwater removed by pit dewatering sumps will be multiplied by a factor reflecting the portion of the pit that is located in Diamond Valley during the period that the sump is operating. Water consumption in Diamond Valley will be measured by flow meters installed on process components located in Diamond Valley. These components are anticipated to consist of the scrubber for the concentrate roaster and domestic water, all of which is designed to drain to leach fields located in Diamond Valley. In addition the amount of water applied by water trucks for dust suppression within Diamond Valley will be recorded. This data will be provided annually to demonstrate compliance with the requirement in Ruling #6127 that all water extracted from Diamond Valley be consumed in Diamond Valley.

V. MITIGATION MEASURES

33. EMLLC will mitigate unreasonable impacts either as agreed upon by the Parties or as directed by the NSE. The Parties will take necessary steps to ensure that mitigation actions are feasible and reasonable.

34. To ensure funding exists for any required future mitigation, including mitigation after the cessation of active mining activities, EMLLC must demonstrate the financial capability to complete any mitigation work. This may include a bond, escrow, or trust account established by EMLLC to fund possible mitigation actions. This provision is to assure that mitigation will take place even after operations of the Project cease as some impacts may be delayed and emerge years after groundwater pumping starts and/or ceases. The WAC shall make recommendations to the NSE for the account.

    EMLLC warrants and affirms these obligations and that it has the financial capability to comply with the condition imposed the NSE in Ruling # 6127. EMLLC agrees to supply the NSE audited financial statements on an annual basis.

35. Modeling conducted by EMLLC and submitted to the NSE, predicts that impacts will occur to existing water rights and water uses. These impacts consist of groundwater lowering and potential diminished spring flows that are claimed, appropriated or used by BLM, owners of the Roberts Creek Ranch, owners of the 3 Bars Ranch and owners of the Santa Fe-Ferguson Ranch. Specific mitigation measures for these parties are proposed as described below:

    BLM: EMLLC would work with BLM to provide alternate water sources to maintain the uses associated with the impacted water rights. EMLLC would pay for the legal and administrative costs associated with water rights filings and changes.

    Roberts Creek Ranch: EMLLC would install a well, equipped with solar-powered pump at Mud Spring. EMLLC would drill a new replacement domestic well to ensure that the domestic well will be able to access the lowered groundwater levels. EMLLC would provide replacement water for impacted groundwater sources in

the northern portion of Kobeh Valley, either from the proposed well field pipeline or from up to two new wells equipped with solar pumps and water troughs. EMLLC would pay for the legal and administrative costs associated with water rights filings and changes.

3 Bars Ranch: EMLLC would install a new well, equipped with solar pump and trough to supplement and/or replace the "Wagon Well". EMLLC would pay for the legal and administrative costs associated with water rights filings and changes.

Santa Fe Ferguson Ranch: EMLLC would install a new well, equipped with solar pump and trough to supplement and/or replace the "Depco" flowing artesian well. EMLLC would pay for the legal and administrative costs associated with water rights filings and changes.

36. Mitigation measures for non-anticipated impacts will be developed on a case-by-case basis, based on recommendations by the WAC, as described in the "Action Criteria" section of this 3M. These mitigation measures would be implemented upon direction by the NSE.

These mitigation measures may include the following:

1) Adjust carbonate/alluvium groundwater pumping ratio. Supply water will be provided from wells located in Kobeh Valley that are completed in the carbonate and in the alluvial aquifers and supplemented by dewatering wells surrounding the mine pit. Pumping of these different aquifers will have different impacts to the groundwater and surface water flow systems. Should monitoring indicate that impacts could be reduced by decreasing the pumping amount from these aquifers, the pumping ratio could be adjusted;

2) Reduction or cessation of groundwater extraction from one or more wells and/or geographic redistribution of groundwater extraction. Impacts can be greatly influenced by the specific location of stressors (i.e. pumping wells). Abandonment of

some specific well or wells and replacing them with wells at new locations may ameliorate these impacts;

3) Restoration/modification of existing habitat or establishment of new habitat. Impacts from decreased surface flows (i.e. habitat loss) may be mitigated by improving wildlife habitat using a variety of means. These measures may include installation of watering guzzlers or establishment of vegetation communities requiring less water. Also, establishment of replacement habitat at a new location (i.e. off-site mitigation) may mitigate impacted habitats;

4) Augmentation of water resources with groundwater extracted by the Project. Alternative sources may be provided to enhance or replace existing sources. For example, replacement wells may be drilled if lowering of groundwater impacts an existing groundwater right or water could be obtained from alternate sources and discharged to the surface to mitigate decreased surface water flows. If livestock water sources are impacted, it should be ensured that augmented or replacement water sources are coordinated with the grazing permittees season-of-use;

5) Purchase other water rights in good standing in the area that are actively used, if available. The acquisition of water rights that are not in use is discouraged. Any impact to individual water rights attributable to the Project could be compensated financially. If basin-wide recharge impacts are attributable to the Project, active and current water rights could be purchased and retired to help re-balance the appropriated amounts with actual recharge;

6) Implement technology to reduce fresh-water consumption of the Project. Pumping rates may be decreased if alternative technology emerges that could reduce water requirements or increase water recycling rates. Water conservation techniques should be proactively employed as to reduce other mitigation measures (i.e. before any impact is measured);

7) Other measures as agreed to by the Parties and/or required by the NSE.

ATTACHMENT A

Mount Hope Mine Project
Water Resources Monitoring Plan

1) This Water Resources Monitoring Plan (WRMOP) has been developed by Eureka Moly, LLC (EMLLC), in conjunction with the BLM, Eureka County and Nevada Department of Wildlife (NDOW). EMLLC proposes this WRMOP to provide a means to assess impacts to water resources from the Mt Hope Mine Project, currently the subject of an Environmental Impact Statement (EIS) being conducted in the Battle Mountain BLM Mount Lewis Field office (MLFO).

Deleted: As such, it is based on Mt Hope Mine potential impacts to BLM-administered resources as predicted by the groundwater modeling conducted to support the EIS. EMLLC may also have additional monitoring responsibilities associated with the Water Pollution Control Permit administered by Nevada Division of Environmental Protection, water rights administered by the Nevada Division of Water Resources (NDWR), or other permit or regulatory programs. This WRMOP is intended to accompany the Plan of Operations (POO) and only addresses the POO and EIS requirements as administered by BLM

2) EMLLC will install newly proposed monitoring wells diligently upon receipt of the Record of Decision (ROD) and acknowledgment of cultural clearance of the locations by the Nevada State Historic Preservation Office and BLM. The intent is to provide for monitoring of baseline data from the new wells prior to changes induced by pumping or pit dewatering.

3) Mitigation of project-related impacts may be required by BLM (or NDWR) based on the degree of impact identified by the data collected under this WRMOP. Potential mitigation elements and thresholds are not discussed in this document.

4) Revisions to the monitoring program may be warranted in the future. This WRMOP is considered to be a living document that will be modified to accommodate changes in the hydrologic understanding of the area, data collected, advances in monitoring methodology, and other reasons as appropriate.

5) EMLLC will be responsible for collecting, managing, and reporting monitoring data. EMLLC may propose modifications to the WRMOP based on the data collected under this plan.

6) EMLLC will provide monitoring data collected under this WRMOP on an annual basis to BLM and members of the Technical Advisory Panel. A written annual report will be provided and a meeting will be scheduled during which EMLLC will present the annual report data.

7) A Technical Advisory Panel (TAP) is proposed to provide stakeholders with access to hydrologic monitoring data and to have a venue to bring forth their comments and concerns. TAP membership and member roles and responsibilities would be developed with BLM upon project approval. In addition, a Technical Advisory Committee and Water Advisory Committee are proposed, as discussed in the Management section of the 3M.

8) Peak groundwater extraction rates of up to 11,300 acre-feet annually (afa) are proposed, with the majority of groundwater coming from the Kobeh Valley wellfield and the

remainder coming from pit dewatering operations. Water flowing to the pit is anticipated to come from Kobeh Valley and Diamond Valley, with the majority from Diamond Valley. Based on predicted dewatering rates, the Diamond Valley withdrawal rate will be approximately 460 gpm (740 afa) near the end of mining. The groundwater extracted for mining use will be consumptively used in processing activities of the Project (i.e. no water will be returned to the aquifer).

9) As previously stated, the purpose of this Monitoring Plan is to identify and characterize changes to the hydrologic environment that could be caused by groundwater withdrawals for the Mt Hope Mine. It is recognized that impacts to water resources may occur from natural processes, non-project related water resource development, and land management practices, as well as from the Mt Hope mining operation.

10) Specific objectives of this WRMOP are to:
   - Confirm or improve the understanding of the hydro-geologic system.
   - Measure changes to surface water flows and groundwater levels caused by the groundwater withdrawals for the project.
   - Characterize impacts to streams, seeps and springs caused by the project.
   - Evaluate impacts to vegetation and/or wildlife habitat caused by the project.
   - Support periodic updates to the hydrologic model to improve the predictive quality of the model.
   - Provide an early warning capability to detect adverse impacts before they become unmanageable

11) Monitoring elements include measuring water extraction, surface water (streams and springs) flow, groundwater elevations, health and trends of wetland, riparian and phreatophyte vegetative communities, water quality, and meteorological data. Pre-development data will be collected to provide a baseline against which to assess data collected after the project pumping begins.

12) Monitoring locations, parameters, and frequencies have been selected to facilitate identification and assessment of impacts. Thus, an overview of the predicted impacts is warranted:
   - Significant ground water consumption in Kobeh Valley is expected to remove water from storage and lower groundwater elevations in portions of Kobeh Valley.
   - Reduction of spring or surface water flows in portions of Kobeh Valley is possible as a result of the lowered groundwater levels.
   - Groundwater drawdown in the extreme western portion of Diamond Valley, in the vicinity of Tyrone Gap, is predicted to occur as the open pit extends below the water table.
   - Predicted impacts to groundwater in Diamond Valley are minimal. Current data suggests that the hydrologic interconnection between Kobeh Valley and Diamond Valley is limited. Historical data document a significant reduction in water levels in Diamond Valley due to extensive agricultural uses of groundwater.

- As the cone of groundwater depression propagates to the north from the well field or to the north and northwest from the pit area, it could encroach upon the southernmost or south-easternmost portions of the Roberts Mountains. This could result in reduction of spring or surface water flows or lowering of shallow groundwater tables that support wet meadow complexes and associated wildlife habitat in these areas.
- Water rights within the cone of depression could be affected: Appropriated surface waters could experience diminished flows. Appropriated groundwater could experience groundwater elevation declines which could impact well efficiencies or pumping costs.
- Ground subsidence and development of fissures at the ground surface could occur due to removal of interstitial water from a substantial volume of alluvial sediments in Kobeh Valley.
- In general, the potential for impacts increases both with proximity of a given resource to the proposed well field and with increased duration of pumping.
- Figures 1 and 2 depict the area that is predicted to experience groundwater drawdown in excess of ten feet at 44 years following project start-up. Figures 1 and 2 also show monitoring locations selected for the WRMOP.

13) Data collection completed by EMLLC will be used by EMLLC to assist in defining baseline conditions. EMLLC has also collected and compiled available water resources data and information in Kobeh Valley, Diamond Valley, Pine Valley, and surrounding areas, including data collected by Eureka County, the USGS, and the NDWR. This information includes location of existing supply and monitoring wells, groundwater extraction rates, groundwater level measurements, flow rates at springs and streams, water quality, and precipitation data.

14) To provide appropriate coverage of the potentially affected area, EMLLC will construct 14 new monitoring wells and observe their water levels on a daily basis utilizing down-hole transducers and data loggers. The preliminary proposed location of these wells is shown on Figures 1 and 2; actual locations may be adjusted in consultation with the BLM, NDWR, and/or TAP. These wells are generally near the extent of the area predicted to experience drawdown in excess of ten feet at Project Year 44, and will provide a sentinel function.

15) As part of the wellfield construction, it is anticipated that a test well would be drilled near each planned production well location. The test wells would be converted to monitoring wells and equipped with down-hole transducers and data loggers for continuous monitoring. The anticipated test well/monitor well locations are within the well field corridor as shown on Figures 1 and 2.

16) In addition to collecting data, EMLLC will compile data collected by USGS, NDWR and Eureka County that is made publicly available and use this data to refine and calibrate the numeric model. EMLLC will incorporate data from the monitoring sites shown on Figures 1 and 2, provided that these data continue to be collected and made available by USGS and NDWR. Eleven USGS sites are considered to provide important coverage, and

EMLLC will monitor these locations if USGS discontinues this monitoring (see Figures 1 and 2, and Table 1).

17) As provided in Figure 1, EMLLC will provide for the monitoring of flows in

- Steiner Creek in southeast Grass Valley, west of Kobeh Valley
- Pine Creek in southern Monitor Valley, south of Kobeh Valley; and
- Allison Creek in Antelope Valley, south of Kobeh Valley.

These regional streams will serve as analogs to provide improved understanding of seasonal or regional conditions that may be impacting the flows in perennial streams. Stage- flow relationships will be established at these locations and the streams will then be equipped with pressure transducers to allow continuous measurement.

18) The information collected pursuant to this WRMOP will be entered by EMLLC into a project database on a regular basis, once it has been checked for laboratory quality control and quality assurance procedures, generally reflecting the monitoring interval.

19) EMLLC has developed a numeric model to simulate the groundwater flow system and the model will be updated to incorporate the data collected for this WRMOP. EMLLC will update the model after recovering 6 months of post-operational monitoring data. Thereafter, EMLLC will update the model on a schedule to reflect the requirements of the BLM.

20) EMLLC will analyze water chemistry to assist in evaluating water source contributions for the specific monitoring locations.

21) EMLLC will implement documented quality assurance and quality control procedures. Monitoring data will be recorded using a standardized (NDEP-compliant) protocol and format for each monitoring event. Protocols will be submitted to BLM for approval. It is anticipated that protocols will be based on those described by Rantz and others (1982) for surface water flow monitoring, Lapham and others (1995) for groundwater level monitoring, and Wilde (2005) for water sampling. Laboratory analyses will be conducted by Nevada-certified laboratories using standard laboratory quality control procedures.

22) EMLLC will survey production wells, monitoring wells and surface water locations to establish ground surface and measuring point elevations.

23) Tables 1 and 2, provided at the end of this document, lists the proposed monitoring site locations, type of monitoring, monitoring frequency and a brief rationale for selecting each location, Wells identified in Table 1 include both existing wells and wells that EMLLC proposes to construct upon project approval. Some wells are located within pit limits that would be mined out as the project advances, and these locations would be dropped from the monitoring plan at that time. Site locations are shown on the attached figures. The monitoring sites in Tables 1 and 2 are organized by locations corresponding

to those shown on the attached figures. The monitoring sites were selected in consideration of the type of data to be collected and the potential impact they are designed to evaluate and assess, as described below.

a. Production Wells: Extraction rates and groundwater levels will be measured continuously (daily readings following an initial period of hourly readings) in production wells.

b. Monitor Wells: Monitoring wells provided in Figure 1 and 2, and as amended in the future under this plan will be monitored to determine depth to groundwater, according to the frequency provided in Table 1. This data is anticipated to assist in characterizing the extent of drawdown within the well field and open pit areas and the propagation of the drawdown away from those areas. Transducers will be placed in the new monitoring wells to provide for continuous monitoring (daily readings following an initial period of hourly readings). It is recognized that the data collection frequency may be adjusted at BLM's or NDWR's direction

c. Surface Waters: Selected springs and surface flow sites in Kobeh Valley, Diamond Valley, and Pine Valley will be monitored to determine flow rates. Continuous flow recording devices will be installed at Roberts Creek, Pete Hanson Creek, Birch Creek, South Fork of Henderson Creek, Vinini Creek, and Tonkin Springs. For low flow conditions or where flow is diffuse on the ground surface, flow measurements may not be practicable, and flow would be estimated.

   Site selection for surface water flow monitoring seeks to generally measure flow within perennial reaches, while considering aspects such as accessibility and channel morphology. At each site, flows and depths will be measured monthly to establish a stage-flow relationship. Pressure transducers will be installed for hourly measurement of head, which will be converted to flow via the stage-flow relations.

d. Baseline chemistry analyses will be completed at all water monitoring sites provided within this plan. Future water chemistry analyses will be conducted as warranted. The suite of baseline parameters will consist of NDEP Profile II constituents plus isotopes of oxygen and hydrogen.

e. Vegetation monitoring will be conducted on transects to represent four wet meadow complexes in the Roberts Mountains to measure species composition, species richness, and plant cover. Minimal impact (hand-augered) monitoring wells or other field assessment will be conducted to identify the source of water that supplies these meadows. The four wet meadow complexes include a pair relatively close to the open pit and well field, and a pair outside of the predicted area of drawdown.

Vegetation monitoring will also be conducted at representative transects in the lower portions of Kobeh Valley and in the lower portions of Roberts Creek. Vegetation monitoring will also be conducted in the Roberts Mountains to augment the larger-scale remote-sensing monitoring described in subsection "f" below.

f. Remote sensing will be conducted to assess vegetation distribution in the Roberts Mountains. The remote sensing will allow the relatively large areas to be monitored economically, provide a more extensive monitoring data set and reduce potential observer bias.

g. Precipitation data will be collected hourly at the existing meteorological station located at Mt Hope. High altitude precipitation storage and measuring sites will be established in the Roberts Mountains, to help in understanding the relationship between precipitation and elevation in this area. Regional data from BLM or NOAA stations will also be evaluated periodically to better define regional and local meteorological inputs.

h. Macroinvertebrate monitoring will be conducted in Roberts Creek, Henderson Creek and Vinini Creek to provide an indication of the ecological health of these streams.

i. Subsidence monitoring will be conducted in Kobeh Valley to measure ground subsidence in response to production water pumping, identify the formation of any fissures caused by pumping, and quantify the rate of growth of any fissures that develop from pumping.

REFERENCES

Lapham, W.W., Wilde, F.D., and Koterba, M.T., 1995, *Ground-water data collection protocols and procedures for the National Water-Quality Assessment Program: Selection, installation, and documentation of wells, and collection of related data:* U.S. Geological Survey Open-File Report 95-398, 70 p.

Rantz, S.E., et al., 1982. *Measurement and computation of streamflow,* U.S. Geological Survey Water Supply Paper 2175, Volumes 1 and 2, 631 p.

Wilde, F.D., 2005, *National field manual for the collection of water-quality data:* Book 9, Handbooks for Water-Resources Investigations, U.S. Department of the Interior and the U.S. Geological Survey.

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Table 1 – Hydrologic Monitoring

Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
Diamond Valley Groundwater	GMI-PDT-1	Depth to Water	Continuous	Vinini hornfels	Pit area groundwater drawdown monitoring
	GMI-PDT-2	Depth to Water	Continuous	Vinini and hornfels	Pit area groundwater drawdown monitoring
	GMI-PDT-3B	Depth to Water	Continuous	Vinini Hornfels	Pit area groundwater drawdown monitoring
	IGMI-152	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-155	Depth to Water	Continuous	Qtz Porphyry	Pit area groundwater drawdown monitoring
	IGMI-156	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-157	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGM-169	Depth to Water	Continuous	Vinini Hornfels	Pit area groundwater drawdown monitoring
	IGMI-226P	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-228P	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-230P	Depth to Water	Continuous	Tuff	Pit area groundwater drawdown monitoring
	IGMI-232P	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-233P	Depth to Water	Continuous	Tuff	Pit area groundwater drawdown monitoring
	IGMI-MH-248	Depth to Water	Continuous	Bedrock	Pit area groundwater drawdown monitoring
	NDWR-15462	Depth to Water	Continuous	Alluvium	Pit area groundwater drawdown monitoring
	MH-300	Depth to Water	Continuous	Alluvium	Monitoring groundwater gradient changes in Tyrone Gap with MH – 301
	MH-301	Depth to Water	Continuous	Alluvium	Monitoring groundwater gradient changes in Tyrone Gap with MH – 300
	MH-302	Depth to Water	Continuous	Alluvium	Monitor influence of potential increased transmissivity zone through Whistler Range.
Diamond Valley Groundwater	MH-303	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation trend on west side of Diamond Valley; Sentinel well.
	MH-304	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation trend on west side of Diamond Valley; Sentinel well.
	MH-305	Depth to Water	Continuous	Alluvium	Monitor drawdown east of pit.
	IGMI-158	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation

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Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
					trend on west side of Diamond Valley; Sentinel well.
	IGMI - 236P	Depth to Water	Continuous	Vinini Fm	Monitor groundwater elevation change in Whistler Range; Sentinel well.
	Romano Well	Depth to Water	Continuous	Vinini Fm	Monitor groundwater elevation trend on west side of Diamond Valley; Sentinel well.
	MH – 306 (153 N21 E52 10AAAC1)	Depth to Water	Continuous		Monitor groundwater elevation trend on west side of Diamond Valley
	MH – 307 (153 N20 E52 26AABC1)	Depth to Water	Continuous		Monitor groundwater elevation changes in Devil's Gate.
	MH – 308 (153 N20 E52 26AABC2)	Depth to Water	Continuous		Monitor groundwater elevation changes in Devil's Gate.
Diamond Valley Springs	KV-059 (Stinking)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-060 (Hash)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-061 (Railroad)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-062 (Trap Corral)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	DV -065 (Shipley)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-1 (McBride)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-2 (Garden pass)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-3 (unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-4 (Mt Hope)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-7 (unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
Kobeh Valley Groundwater	All production wells	Flow and Depth to Water	Continuous	Alluvium and carbonate	Measure well field production, individual well response to pumping stress, and drawdown progression in wellfield
	GMI-RWX-228T	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	GMI-RWX-229	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	RWX -205	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	MH-400	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation change in alluvium on west side of Whistlers paired w/ MH-401 to assess connection between

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Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
					alluvium and bedrock aquifers; assess effect of inferred structure located to the east.
Kobeh Valley Groundwater	MH-401	Depth to Water	Continuous	Bedrock	Monitor groundwater elevation change in bedrock on west side of Whistlers paired w/ MH-400 to assess connection between alluvium and bedrock aquifers; assess effect of inferred structure located to the west.
	MH-402	Depth to Water	Continuous	Alluvium	Monitor drawdown at east edge of Kobeh Valley.
	MH-403	Depth to Water	Continuous	Alluvium	Monitor potential drawdown in upper Roberts Creek; Sentinel.
	MH-404	Depth to Water	Continuous	Bedrock	Monitor potential drawdown in western part of Robert's Creek watershed; Sentinel.
	MH – 405	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	MH – 406	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	MH – 407	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	MH – 408	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	MH – 409	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	MH – 410	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	MH – 411	Depth to Water	Continuous	Alluvium	Measure drawdown progression in wellfield
	MH – 412	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between wellfield and pit area.
	MH- 413	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between wellfield and pit area.
	MH - 414 (139 N21 E49 25BBDA)	Depth to Water	Continuous	Alluvium	Monitoring of west side of KV wellfield drawdown
	MH - 415 (139 N21 E50 17BACC)	Depth to Water	Continuous	Alluvium	Monitoring of west side of KV wellfield drawdown
	MH - 416 (139 N20 E51 05CBCC)	Depth to Water	Continuous	Alluvium	Monitoring of south side of KV wellfield drawdown
	MH - 417 (139 N21 E51 36DCDB1)	Depth to Water	Continuous	Alluvium	Monitoring of southeast side of KV wellfield drawdown

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Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
	MH -418 (139 N21 E51 24DDDB1)	Depth to Water	Continuous	Alluvium	Monitoring of southeast side of KV wellfield drawdown
	MH – 419 (139 N20 E49 23ACCB1)	Depth to Water	Continuous	Alluvium	Monitoring of drawdown between wellfield and Bean Flat phreatophytes
	MH – 420 (139 N20 E49 24ACAB)	Depth to Water	Continuous	Alluvium	Monitoring of drawdown between wellfield and Bean Flat phreatophytes
	MH – 421	Depth to Water	Continuous	Alluvium	Monitoring of west side of KV wellfield drawdown
	RWX - 209 shallow and deep	Depth to Water	Continuous	Alluvium /Vinini	Monitoring of northwest side of KV wellfield drawdown
	MRCMW	Depth to Water	Continuous	Alluvium	Monitoring of potential drawdown in Roberts Creek watershed
	LRCMW	Depth to Water	Continuous	Alluvium	Monitoring of potential drawdown in Roberts Creek watershed
	IGM-154,	Depth to Water	Continuous	Alluvium	Pit area groundwater monitoring
	IGMI-234P	DTW and Chemistry	Continuous	Alluvium	Monitor groundwater elevation change in Whistler Range Sentinel well.
	IGMI-235P	DTW and Chemistry	Continuous	Vinini Fm	Monitor groundwater elevation change in Whistler Range Sentinel well.
	IGMI-237P	DTW and Chemistry	Continuous	Vinini Fm	Monitor groundwater elevation change in Whistler Range Sentinel well.
	TM1-B	DTW and Chemistry	Continuous	Alluvium	Monitoring of east side of KV wellfield drawdown
	Atlas 1	DTW/ pressure	Continuous	Alluvium	Monitoring northwest of predicted 10 foot drawdown contour
	Bartine Ranch Well 1, 2, 3 (flowing)	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	Big Windmill	DTW/pressure	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between wellfield and pit area.
	Colby well	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	KV 064	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	Depco INC;	DTW/pressure	Continuous	Alluvium	Monitoring of drawdown between wellfield and Bean Flat phreatophytes
	Etcheverry Windmill	DTW/pressure	Continuous	Alluvium	Monitoring of west side of KV wellfield drawdown

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Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
	IGMI-MH-RWX-203 T	DTW/pressure	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between wellfield and pit area
	NDWR9211R	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	RWX- 204	DTW/pressure	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between wellfield and pit area
	KFE	DTW/pressure	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between wellfield and pit area
	KFW	DTW/pressure	Continuous	Alluvium	Monitoring northwest of predicted 10 foot drawdown contour
	Treasure Well	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	GMI-RWX-223	DTW/pressure	Continuous	Alluvium	Measure drawdown progression in wellfield
Kobeh Valley Streams	LRC (Lower Roberts Creek)	Flow Rate; Water Quality	Continuous		Potential indirect impacts to perennial streams
	URC (Upper Roberts Creek)	Flow Rate; Water Quality	Continuous		Potential indirect impacts to perennial streams
	MH 700 (Cottonwood Canyon)	Flow	Continuous		Potential indirect impacts to perennial streams
	MH 701 (Cottonwood Canyon)	Flow	Continuous		Potential indirect impacts to perennial streams
Kobeh Valley Springs	KV-002 (Potato Canyon)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-026 (Rutabega)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts near wellfield
	KV-034 (Mud)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts near wellfield
	KV-035 (Lone Mtn)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts south of wellfield
	KV-044 (Hot)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-015 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-016 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-020 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-6 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-7 (Nichols Spring)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	MH - 702 (Jack Spring)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts, west side of Roberts Mtn.

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Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
	MH – 703 (Klobe Spring)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts in Antelope Valley
Pine Valley Springs	PV-059 (Dry Creek headwater spring)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-060	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-061	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-062	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-063	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-064	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-065	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
Pine Valley Springs	OT-2	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-3	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-5	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-10A	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-11	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
Pine Valley Streams	LBC (Lower Birch Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	LHC (Lower Henderson Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	UHC (Upper Henderson Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	LPHC (Lower Pete Hanson Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	UPHC (Upper Pete Hanson Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	Tonkin Springs	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	LVC (Lower Vinini)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	UVC (Upper Vinini Cr.	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	WC (Willow Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
Pine Valley Groundwater	MH-500	Depth to Water	Continuous	Bedrock	Sentinel well in mountain block south of Henderson Creek
	MH-501	Depth to Water	Continuous	Alluvium	Henderson Creek groundwater elevations

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Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
	MH-502	Depth to Water	Continuous	Bedrock	Sentinel well in mountain block east of springs in upper Henderson Creek

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Table 2 - Biological and Meteorological Monitoring

Area	Site Name(s)	Parameters	Frequency
Wet Meadow Complexes in Roberts Mountains	Three to five vegetation transects in each of the WMC, locations to be determined;	Species composition, species richness, and plant cover.	Semi-Annually (May and July)
Phreatophytic vegetation in lower Kobeh Valley	Three to five vegetation transects in each of the phreatophyte vegetation communities, locations to be determined;	Species composition, species richness, and plant cover.	Transects - Semi-Annually (April and June);
Phreatophytic and riparian vegetation in lower Roberts Creek	Three to five vegetation transects in the watershed, locations to be determined	Species composition, species richness, and plant cover.	Transects - Semi-Annually (April, June);
Phreatophytic and riparian vegetation in Henderson Creek	Three to five vegetation transects in the watershed, locations to be determined	Species composition, species richness, and plant cover.	Transects - Semi-Annually (April, June);
Roberts Mountain	Not applicable	Remote sensing (Aerial photography or satellite imagery)	Initially for entire mountain; Every two years for riparian areas.
Streams in Roberts Mountains.	Roberts Creek, Vinini Creek, Henderson Creek	Macro-invertebrate monitoring	Annually (late summer/early fall base flow).
Mine site	Existing Mt Hope met station	Temperature, precipitation, humidity, wind speed and wind direction	Hourly.
Roberts Mountains	Minimum of 3 high-altitude sites in Roberts Mountains, locations to be determined.	Precipitation	To be determined.

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3

YAHOO! MAIL Classic

Fw: Draft 3M Plan Thursday, August 11, 2011 3:53 PM

From: "Michael Branstetter" <branstetter83873@yahoo.com>
To: "Karen Peterson" <kpeterson@allisonmackenzie.com>

4 Files (1000KB)

3M Draft ... Attachme... Monitoring... Monitoring...

Hello Karen,
Eureka Moly's management and legal has completed its review of the 3M, identified in the below email. It is acceptable to Eureka Moly. I reluctantly made one redline change on page 2. We need to state who "EMLLC" is. My redline version is attached. You may accept the redline if you agree with my change and we are ready to have it considered by the Commissioners.
In addition, I am attaching Attachment A and maps. The latter have been sent to Jake and Dale today by Pat Roger's staff. Attachment A was changed per Jake's request. We also approve Attachment A. Text was removed, leaving only Tables and maps. No substantive or other changes have been made to the Attachment.
Please let me know if you have any questions or comments.
Thanks, Mike B.

--- On Tue, 8/9/11, Michael Branstetter <branstetter83873@yahoo.com> wrote:

From: Michael Branstetter <branstetter83873@yahoo.com>
Subject: Draft 3M Plan
To: "Karen Peterson" <kpeterson@allisonmackenzie.com>
Date: Tuesday, August 9, 2011, 2:05 PM

Karen, Thank you for confirming that Eureka County's staff will have no more comments to the 3M Plan(which I understand carries the footer description "3M Draft 2011-08-04 rev 02") and that Ted is ok with it from a legal review standpoint. That information is helpful in clarifying the status since I was not a participant in the talks.
Management, along with legal, is reviewing the draft and we will be able to have our comments, if there are any, to you by 8/15/11, as requested. If I am able to
let you know before that date I will do so.
I left a message on your voice mail today and would still like for you to call me.
Thanks, Mike B.

NEVADA DIVISION OF WATER RESOURCES MONITORING, MANAGEMENT, AND MITIGATION PLAN FOR THE MT. HOPE PROJECT

1. BACKGROUND

A. This Monitoring, Management, and Mitigation Plan (3M) applies to proposed groundwater extraction rates of up to 11,300 acre-feet per year (af/yr) from Kobeh Valley and Diamond Valley for mining process water as granted in Ruling #6127 of the office of the Nevada State Engineer (NSE) dated July 15, 2011. A condition of this Ruling was that this 3M be prepared with input and cooperation of Eureka County. The groundwater extracted will be consumed in activities related to the Mt. Hope Project (Project), including mineral processing and mine dust control. The groundwater would be extracted by Eureka Moly, LLC, (EMLLC) through Kobeh Valley Ranch, LLC (KVR), both of which are subsidiaries of General Moly, Inc. (GMI), with KVR being the water rights holder. The operator of the Project is EMLLC. The groundwater would be supplied primarily from a wellfield in Kobeh Valley and conveyed via pipelines to the mine and mill site. In addition, groundwater extraction would include open pit dewatering at rates that are predicted to reach 742 af/yr. The distribution of this extraction is estimated at 20% from Kobeh Valley Hydrographic Basin and 80% from the Diamond Valley Hydrographic Basin.

2. PURPOSE OF THE 3M

A. The purpose of this 3M is to assist the NSE in managing development of groundwater resources within and near the Project area to avoid adverse impacts to existing water rights and the customary uses of local water dependent public resources (e.g., wildlife, grazing forage, recreation).

B. The 3M outlines a process by which adverse impacts may be identified and ultimately mitigated, should they occur. It is intended to provide the necessary data to assess the response of the aquifer(s) to the stress of water resource exploitation, provide an early warning capability, and provide safeguards for responsible management of water and water dependent resources.

3. AUTHORITIES AND PARTICIPANTS

A. The NSE has final authority over the 3M and EMLLC will be responsible for implementing and complying with the 3M.

B. In addition to the purpose outlined above, this 3M is intended to provide participation and transparency to the locally affected stakeholders. Additionally, Eureka County has local natural resource, land-use, and water resource policies, plans, and goals developed under Nevada State Law that obligate County officials, both elected and appointed, to actively participate in the planning and management of resources within Eureka County.

Therefore, Eureka County, and representatives from locally affected farming and ranching interests will be invited to participate in this 3M. In the event there are other entities who have a vested interest in water resources and this 3M, these entities could be invited to participate as described under **MANAGEMENT**.

C. The USGS will be invited to participate expressly to provide impartial technical and scientific input.

D. This 3M is separate from the requirements placed upon EMLLC by Bureau of Land Management (BLM) or Nevada Department of Wildlife (NDOW). The BLM has claimed Federal Public Water Reserves (PWR 107) within the area of concern. The BLM and EMLLC have entered into a stipulated settlement agreement as a condition of the BLM withdrawal of protests of EMLLC's water right applications and NDOW is included as a party to the settlement agreement.

E. All of the participants in this 3M are hereinafter referred to as "Parties".

4. PRINCIPAL COMPONENTS

The 3M consists of three principal components:

A. Management

B. Monitoring

C. Mitigation

The framework of these components is described in the following sections.

5. MANAGEMENT

A. Two committees are established. The Water Advisory Committee (WAC) is to establish and carryout policy and Operating Guidelines under this 3M. The Technical Advisory Committee (TAC) is to provide the technical scientific expertise necessary for collection, evaluation and analysis of data. Separation of the roles and responsibilities of these two bodies is considered crucial to maintaining scientific impartiality of the data collection and analysis program.

B. **Water Advisory Committee:**

a. A WAC will be established with one member from each Party. Initially, EMLLC, NSE, and Eureka County representatives will convene no later than 30 days after NSE approval of this 3M. Procedures will be established at this time for invitation and inclusion of the other Parties into the WAC, with the exception of the USGS,

which participates only in the TAC. The WAC may also invite other potentially affected water rights holders and interests to participate. A representative of the NSE will be invited to participate as the chair of the WAC. If the NSE representative declines this invitation, the WAC will elect the chairman.

b. After the full WAC has been convened it will establish policy, define additional roles and responsibilities of the WAC and TAC, and develop Operating Guidelines (OG) such as scheduling of meetings, agenda setting, publication of minutes, and any other necessary components. These policies and OG will be consistent with Nevada Law, the requirements and conditions of the NSE, and the terms and provisions of this 3M.

c. The WAC will meet no less than one time in each quarter starting at the execution of this 3M and through the first year of Project groundwater extraction. Meeting frequency may be adjusted as decided by the WAC, but will be no less than once annually.

d. Purposes and Functions of the WAC will be to:

i. Provide a public forum for Parties to discuss relevant data and analyses.
ii. Share information regarding modeling efforts and model results.
iii. Make recommendations for modifications to the Monitoring component of this 3M, including, but not limited to additional data collection and scientific investigations, as recommended by the TAC.
iv. Provide status reports and recommendations to the Parties.
v. Form recommendations for groundwater management or mitigation actions based on reports from the TAC.
vi. Review financial assurance periodically and make adjustment to amount as appropriate and recommend release of funds for mitigation.
vii. Recommend values for monitored variables (water levels, spring discharges, vegetation responses, etc.) known as "action criteria" which, if exceeded, may be of concern to the Parties and could require mitigation or management actions.
viii. Make recommendations on what constitutes an adverse impact on a case-by-case basis.
ix. Provide the NSE, Parties, and the local stakeholders with results of any analyses or technical evaluations, along with recommendations for specific mitigation or management actions.

C. **Technical Advisory Committee:**

a. The WAC will create a Technical Advisory Committee (TAC) as a subcommittee to the WAC. Each Party represented on the WAC will be able to appoint one TAC member. In addition, the USGS will be invited to participate as a member of the TAC. Funding for the USGS's participation in the 3M will be borne by EMLLC either through new or financial contribution to existing joint funding agreements

with USGS sponsored by Eureka County to study the Diamond Valley Flow System. TAC members must exhibit a professional level of technical or scientific expertise and a background or experience in land management, natural resources, water resources, or other related field. The WAC will develop criteria for membership in the TAC under its OG. Other TAC members may be appointed by the WAC in addition to the individual TAC members representing each Party.

b. The TAC will meet within 30 days after WAC appointment to review EMLLC's proposed monitoring provided as Attachment A to this 3M. Upon completing this review, the TAC will make recommendations for changes (if any) to the monitoring components of this 3M. Thereafter, the TAC will meet at intervals deemed appropriate by the TAC to review and analyze data, but not less than twice annually or as instructed by the WAC.

c. Purposes and Functions of the TAC will be to:

i. Review the proposed monitoring and recommend implementation, including any changes to the specific monitoring elements, as appropriate.
ii. Review historic groundwater level trends, spring and stream flows to determine historic hydrologic trends. Where possible, identify wet and dry regimes, climate effects on groundwater recharge rates and base flows in surface waters.
iii. Review, develop, and refine standards and quality control procedures for data collection, management, and analysis.
iv. Inform the entity or entities that collect data of standard accepted protocols of data collection, recording and analysis (e.g., USGS) that will be used.
v. Evaluate monitoring data, reports, analyses, etc. to determine whether data gaps exist and make appropriate recommendations to the WAC.
vi. Develop and recommend action criteria for management or mitigation based upon available data and analyses.
vii. Evaluate all monitoring data to determine if any action criterion has been or is predicted to be exceeded, indicating a possible adverse impact and report findings to the WAC.
viii. Recommend mitigation and management measures and related scope of work details to the WAC. This includes individual resources or a comprehensive list of all resources to support WAC evaluation of the adequacy of mitigation funding.
ix. Evaluate the effectiveness of mitigation, if implemented, and report findings to the WAC.
x. Make recommendations regarding the numerical groundwater flow model, including appropriate times for model updates and the most useful modes of model output.

D. **Numerical Groundwater Flow Model:**

a. EMLLC has developed the Numerical Groundwater Flow Model (FM) to simulate the groundwater flow system and the FM will be updated to incorporate the data collected under this 3M. EMLLC will update the FM after recovering data from the first six months of wellfield pumping for mineral processing if recommended under the provisions of this 3M. Thereafter, EMLLC will update the FM on a schedule as recommended under the provisions of the 3M.

b. The FM will be used as a management tool to evaluate predictions of drawdown and impacts.

E. **Dewatering:**

a. Water pumped for mine dewatering will be isolated from processing facilities. Therefore, water extracted from Diamond Valley will have no connection, piped or other, into the processing facilities which return water to the tailings dam in Kobeh Valley. No water from dewatering will be used outside of Diamond Valley and the pit complex. The pit complex includes the pit and the contiguous waste rock disposal facilities. If excess water is produced within the Diamond Valley Hydrographic Basin which is not consumed in that basin, this water will be returned to the basin using some acceptable method under the provisions of this 3M.

b. The volume of water derived from pit dewatering and consumed will be documented and reported to verify that all water extracted from Diamond Valley was consumed in Diamond Valley.

F. **Action Criteria:**

a. Specific quantitative action criteria will be developed to provide early warning of potential adverse impacts to local water dependent public resources, water uses, and water rights arising from water pumping by the Project.

b. Recommendations to the WAC for action criteria will be made by the TAC based on data analyses. Action criteria adopted by the WAC will be presented to the NSE for consideration as management or mitigation triggers.

c. When any action criteria that has been approved by the NSE and adopted as part of this 3M is reached, the following management actions will be triggered:

i. The TAC will meet as soon as possible to assess whether the action criterion exceedance is a result of groundwater extraction by the Project and present their findings to the WAC.
ii. If the WAC determines that any action criterion exceedance is attributable to groundwater extraction by the Project, the WAC will direct the TAC to expeditiously develop mitigation or management actions. The TAC will

analyze the feasibility of the specific measures to assess alternatives, evaluate the potential effectiveness of the measures, and evaluate potential impacts created by implementation of the measures.

iii. The WAC will determine whether or not to recommend implementation of the mitigation or management actions to the NSE.

iv. The effectiveness of any implemented measure will be evaluated by the TAC. Results and recommendations will be reported to the WAC.

v. Any member of the WAC may propose an additional action criterion or a change to existing action criteria. Any such change must be presented in writing to the WAC, and accompanied by data and scientific analyses to support the proposed change. If the supporting analyses are found to be technically sound by the TAC, then the WAC may recommend to the NSE that the action criterion be adjusted.

vi. Any final action taken or decision made by the NSE shall be subject to the provisions of applicable Nevada Water Law.

G. **Decision-Making Process:**

a. For technical issues, including, but not limited to monitoring modifications, setting action criteria, and appropriate mitigation, decisions will be made in consideration of the evaluation and recommendations of the TAC.

b. The WAC shall make decisions by unanimous vote. If unanimity is not achieved the Parties may jointly agree to conduct additional data collection and/or data review and analyses directed at resolving the different interpretations or opinions, if possible. If that is not successful, the Parties may refer the issue to the NSE.

c. Decisions made by the WAC regarding changes to the 3M, implementation of mitigation, or other management actions that would be required of EMLLC will be provided to the NSE as recommendations. The NSE will then consider the WAC recommendations and determine whether to require implementation of such management and/or mitigation actions.

d. Nothing herein limits or changes the NSE authority, and any Party can petition the NSE to consider any issue.

H. **Modification of the 3M**

a. The WAC may modify this 3M under the provisions contained herein.

b. The Parties may individually or jointly petition the NSE to modify this 3M in the event that mutual agreement cannot be reached. Any such petition shall be concurrently provided to the other Parties. Prior to the NSE decision, all Parties will be provided the opportunity to submit a written response to the NSE no later than 60 calendar days following the date of receipt of the petition by NSE.

6. MONITORING

A. Hydrological related studies for the Project contain data concerning water and related resources in Kobeh Valley, Diamond Valley, Pine Valley, and surrounding areas. These include locations of existing and proposed supply and monitoring wells, groundwater extraction rates, groundwater level measurements, flow from springs and streams, water quality, precipitation data, and wetland/riparian conditions. Additional data relevant to the Project available from other local, state, and federal agencies or other reliable sources will be compiled into a database by EMLLC and expanded as new data are collected under the provisions of this 3M.

B. The proposed monitoring is provided as Attachment A to this 3M. It was developed to describe the monitoring that will be conducted to meet BLM monitoring requirements, and is incorporated into the Mt Hope Plan of Operations. As described in MANAGEMENT of this 3M, the TAC will review this proposed monitoring and provide recommendations regarding changes and/or implementation. In addition to this initial review, the TAC may review the proposed monitoring and make recommendations for changes throughout the Project life based on monitoring data and analysis. Such recommended changes may include, but not be limited to addition or deletion of monitoring sites, addition or deletion of monitoring parameters, changes to monitoring methods, and increases or decreases in monitoring frequencies. Upon acceptance by the NSE, EMLLC will implement these monitoring requirements.

C. The term "as is feasible" as used in this 3M relates to mechanical failures or other events/reasons outside the control of the Parties, as agreed upon by the Parties, that interfere with data collection.

D. Groundwater

a. Groundwater extraction amounts will be measured by flowmeters installed on each production well, dewatering well and pit dewatering sump.

b. Water levels in wells installed in the Project network will be measured by recording pressure transducers (data loggers). The measurement frequency will depend on distance to the wellfield and based on TAC recommendations.

c. The monitoring network will include "sentinel" wells (i.e., wells strategically located to provide early indication of drawdown propagation towards sensitive or important resources). At a minimum these will be located near the boundary between Kobeh Valley and Diamond Valley, and between the wellfield and the headwaters of Henderson Creek, Roberts Creek, Gravel Pit Spring, Bartine artesian wells, and the stock wells at Hay Ranch. Consideration will be given to completing nested wells that monitor individual aquifers at a single location where more than one hydrostratigraphic unit is present or strong vertical gradients may exist.

d. Test wells constructed at each production well site will be maintained as monitoring wells as is feasible and equipped with recording pressure transducers.

e. Several USGS monitoring wells are located near the proposed well field and within the projected drawdown area. If the USGS is not funded to monitor these specific wells, EMLLC will request permission to collect data from these wells. If permission cannot be obtained, the WAC will seek an evaluation by the TAC for replacement.

E. **Pit Dewatering**

a. Groundwater will be extracted from the Diamond Valley Hydrographic Basin either by wells or pit dewatering sumps. To determine the amount of water from pit dewatering within the Diamond Valley Hydrographic Basin, the total groundwater removed by pit dewatering sumps will be measured by totalizing flow meters and then multiplied by a factor reflecting the portion of the pit area that is located in Diamond Valley Hydrographic Basin. The discharge from dewatering wells will be measured with totalizing flow meters and proportioned between the two basins through hydrogeological analysis by the TAC. Water truck loads utilized in the pit complex will be counted and recorded to document water used in Diamond Valley for mine environmental dust suppression. The amount of water used in Diamond Valley for other ancillary uses (e.g., truck wash) will be metered and/or estimated and recorded in the database.

F. **Surface Water**

a. The flow of streams will be conducted as follows:

i. Monitoring will include continuous measurements of stream stage at selected control sections for each stream as is feasible.
ii. The geometry of the control sections will be measured at the start of monitoring and re-measured at least annually.
iii. Stage measurements will be collected with recording pressure transducers on a frequency of not less than one hour.
iv. The flow in the streams at the control sections will be gaged monthly, as is feasible, for the first year of record to establish stage-discharge relationship for each gaging station and following any changes in the control section geometry.
v. All control sections in streams will be assessed routinely for any changes in the control section geometry and the stage discharge relationship be re-established accordingly.
vi. Following the first year of gaging, stream-flow measurements will be collected at least quarterly.
vii. Flow data will be recorded at least quarterly and hydrographs updated at least annually.

G. **Water Quality**

a. Water quality samples will be collected from selected production and monitoring wells, surface waters and pit water and analyzed by a laboratory certified by the State of Nevada using standard accepted protocols and a standard water test. Macroinvertebrate monitoring will take place in select streams as an indicator of general stream and/or fishery health.

H. **Biological Resources**

a. Monitoring of vegetation, including phreatophyte vegetation, riparian zones, and other vegetation communities will be conducted. These locations will be expanded to include additional sites in Kobeh Valley, Diamond Valley, Pine Valley, and some surrounding valleys that may be affected by groundwater extraction. Data will be collected using a variety of techniques and will include on-site measurement of vegetation cover, frequency, and type. Shallow wells will be co-located with vegetation monitoring transects. Remote sensing will be employed to help define and monitor the extent of vegetation communities at a larger spatial scale.

I. **Meteorology**

a. Weather/Climate stations will be maintained to continuously monitor wind speed and direction, precipitation, temperature, barometric pressure, humidity, and solar radiation. Existing precipitation stations will be used where possible. The purpose of collecting weather/climate data is to have a basis for evaluating whether changes in groundwater levels or stream and spring flow are due to changes in weather or climate.

J. **Elevation Control/Subsidence**

a. Monitoring locations for subsidence, groundwater measuring point elevations and ground surface elevations will be established using survey-grade GPS instrumentation. A standard GPS data collection protocol (i.e. common geographic datum) will be used to allow a comparative base for all elevation associated data. Subsidence monitoring will be augmented using remote sensing technologies (e.g. InSAR). Frequency and methodology of remote sensing to monitor subsidence will be reviewed and recommended by the WAC.

K. **Data Management**

a. All monitoring data will be entered into the 3M database on a regular and timely basis as it is collected and verified using WAC approved quality assurance and quality control (QA/QC). Data collected under or as described in this 3M will be fully and cooperatively shared among the Parties. Verified data within the 3M database will become available to the public, upon request.

b. In addition to updating the 3M database on a regular basis, EMLLC will provide an annual report that summarizes all information and analysis. This report will be prepared based on recommendations and in cooperation with the TAC. These reports will be provided to the Parties for assessment of impacts to water and water dependent resources resulting from groundwater extraction of the Project.

6. MITIGATION MEASURES

A. EMLLC will mitigate adverse impacts as agreed upon by the Parties under the provisions of this 3M. The WAC will take necessary steps to ensure that mitigation actions are feasible, reasonable, and timely.

B. Effectiveness of implemented mitigation measures will be evaluated under the provisions of this 3M. Additional measures will be implemented if mitigation does not meet its intended purpose(s).

C. To ensure funding exists for any required future mitigation, including mitigation after the cessation of active mining, EMLLC will provide financial assurance necessary to complete any future mitigation work based on predicted impacts under the provisions of this 3M. A mutually agreeable Trustee will be selected to administer the account and release funds upon approval under the provisions of this 3M.

D. Initial funding will be placed into an interest bearing account or other funding mechanism (e.g., insurance) under this 3M. This funding will occur no later than GMI Board of Directors approval to construct the Project. Additional funding will occur not later than the end of month six of wellfield pumping for mineral processing (plant startup). This account will be reviewed under the provisions of this 3M upon the first FM update. This account will be periodically (e.g. each three years) adjusted under the provisions of the 3M to ensure that sufficient funding is in place to mitigate predicted adverse impacts, including operating and maintenance and long-term replacement costs, and adjusted for inflation.

a. The initial funding amount is $500,000.
b. The six month augmented funding is $500,000.

E. Modeling and analyses conducted by EMLLC and submitted to the NSE predicts declining water levels due to Project pumping in Kobeh, Pine and Diamond valleys. The analysis predicts impacts will occur to existing water rights and customary water uses in Kobeh Valley. This 3M does not outline which specific mitigation measures would address these impacts, but outlines the procedures to validate occurrence of predicted impacts and implement mitigation prior to or at occurrence.

F. To ensure wildlife have continued access to customary use as required under NRS 533.367, adversely impacted surface water sources will be mitigated through such

measures, including but not limited to, installation and maintenance of replacement water sources (e.g., guzzlers).

G. Mitigation measures will be developed on a case-by-case basis under provisions of this 3M. These mitigation measures will be implemented as directed by the NSE.

H. Potential mitigation measures could include the following:

a. Supply water will be provided from wells located in Kobeh Valley that are completed in the carbonate and alluvial aquifers. Pumping of these different aquifers will have different impacts to the groundwater and surface water flow systems. Adjustment of carbonate/alluvium groundwater pumping ratio could be employed.

b. Impacts can be greatly influenced by the specific location of groundwater pumping. There could be reduction or cessation of groundwater extraction from one or more wells and/or geographic redistribution of groundwater extraction.

c. Restoration, modification, or replacement of existing habitat or forage using a variety of means (e.g., seeding and planting, thinning or other vegetative treatments).

d. Augmentation of water resources with other groundwater. Alternative sources may be provided to enhance or replace existing sources. For example, replacement wells may be drilled if lowering of groundwater impacts an existing groundwater right. Water could be obtained from alternate groundwater sources and used to mitigate specific adverse impacts to surface water flows (e.g., well and tank accessible to both livestock and wildlife). If livestock water sources are impacted, it will be ensured that augmented or replacement water sources are coordinated with the grazing permittee's season-of-use.

e. Any impact to individual water rights attributable to the Project could be compensated financially.

f. If adverse impacts to the Diamond Valley Flow System, or other adjacent basins, are attributable to the Project, active and current water rights within the affected basin could be purchased and retired.

g. Implement technology to reduce fresh-water consumption of the Project. Pumping rates may be decreased if alternative technology emerges that could reduce water requirements or increase water recycling rates. Water conservation techniques will be proactively employed in order to reduce other mitigation measures (i.e. before any impact is measured).

h. Water-dependent recreation such as fishing, swimming, and camping may be mitigated by replacement, enhancement or augmentation of recreation opportunities in the vicinity of the impacted resource.

i. Other measures as agreed to by the Parties and/or required by the NSE.

ATTACHMENT A

Table 1 – Hydrologic Monitoring

Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
Diamond Valley Groundwater	GMI-PDT-1	Depth to Water	Continuous	Vinini Hornfels	Pit area groundwater drawdown monitoring
	GMI-PDT-2	Depth to Water	Continuous	Vinini Hornfels	Pit area groundwater drawdown monitoring
	GMI-PDT-3B	Depth to Water	Continuous	Vinini Hornfels	Pit area groundwater drawdown monitoring
	IGMI-152	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-155	Depth to Water	Continuous	Qtz Porphyry	Pit area groundwater drawdown monitoring
	IGMI-156	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-157	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGM-169	Depth to Water	Continuous	Vinini Hornfels	Pit area groundwater drawdown monitoring
	IGMI-226P	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-228P	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-230P	Depth to Water	Continuous	Tuff	Pit area groundwater drawdown monitoring
	IGMI-232P	Depth to Water	Continuous	Vinini Fm	Pit area groundwater drawdown monitoring
	IGMI-233P	Depth to Water	Continuous	Tuff	Pit area groundwater drawdown monitoring
	IGMI-MH-248	Depth to Water	Continuous	Bedrock	Pit area groundwater drawdown monitoring
	NDWR-15462	Depth to Water	Continuous	Alluvium	Pit area groundwater drawdown

Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
					monitoring
	MH-300	Depth to Water	Continuous	Alluvium	Monitoring groundwater gradient changes in Tyrone Gap with MH – 301
	MH-301	Depth to Water	Continuous	Alluvium	Monitoring groundwater gradient changes in Tyrone Gap with MH – 300
	MH-302	Depth to Water	Continuous	Alluvium	Monitor influence of potential increased transmissivity zone through Whistler Range
	MH-303	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation trend on west side of Diamond Valley; Sentinel well
Diamond Valley Groundwater	MH-304	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation trend on west side of Diamond Valley; Sentinel well
	MH-305	Depth to Water	Continuous	Alluvium	Monitor drawdown east of pit
	IGMI-158	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation trend on west side of Diamond Valley; Sentinel well
	IGMI - 236P	Depth to Water	Continuous	Vinini Fm	Monitor groundwater elevation change in Whistler Range; Sentinel well
	Romano Well	Depth to Water	Continuous	Vinini Fm	Monitor groundwater elevation trend on west side of Diamond Valley; Sentinel well
	MH – 306 (153 N21 E52 10AAAC1)	Depth to Water	Continuous		Monitor groundwater elevation trend on west side of Diamond Valley
	MH – 307 (153 N20 E52 26AABC1)	Depth to Water	Continuous		Monitor groundwater elevation changes in Devil's Gate

Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
	MH – 308 (153 N20 E52 26AABC2)	Depth to Water	Continuous		Monitor groundwater elevation changes in Devil's Gate
Diamond Valley Springs	KV-059 (Stinking)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-060 (Hash)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-061 (Railroad)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-062 (Trap Corral)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	DV-065 (Shipley)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-1 (McBride)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-2 (Garden pass)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-3 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-4 (Mt Hope)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	SP-7 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
Kobeh Valley Groundwater	All production wells	Flow, Depth to Water	Continuous	Alluvium and carbonate	Measure well field production, individual well response to pumping stress, and drawdown progression in well field
	GMI-RWX-228T	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field
	GMI-RWX-229	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field
	RWX -205	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field

Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
Kobeh Valley Groundwater	MH-400	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation change in alluvium on west side of Whistlers paired w/ MH-401 to assess connection between alluvium and bedrock aquifers; assess effect of inferred structure located to the east
	MH-401	Depth to Water	Continuous	Bedrock	Monitor groundwater elevation change in bedrock on west side of Whistlers paired w/ MH-400 to assess connection between alluvium and bedrock aquifers; assess effect of inferred structure located to the west
	MH-402	Depth to Water	Continuous	Alluvium	Monitor drawdown at east edge of Kobeh Valley
	MH-403	Depth to Water	Continuous	Alluvium	Monitor potential drawdown in upper Roberts Creek; Sentinel well
	MH-404	Depth to Water	Continuous	Bedrock	Monitor potential drawdown in western part of Robert's Creek watershed; Sentinel well
	MH-405	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field
	MH-406	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field
	MH-407	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field
	MH-408	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field
	MH-409	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field
	MH-410	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field

Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
Kobeh Valley Groundwater	MH-411	Depth to Water	Continuous	Alluvium	Measure drawdown progression in well field
	MH-412	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between well field and pit area
	MH-413	Depth to Water	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between well field and pit area
	MH-414 (139 N21 E49 25BBDA)	Depth to Water	Continuous	Alluvium	Monitoring of west side of KV well field drawdown
	MH-415 (139 N21 E50 17BACC)	Depth to Water	Continuous	Alluvium	Monitoring of west side of KV well field drawdown
	MH-416 (139 N20 E51 05CBCC)	Depth to Water	Continuous	Alluvium	Monitoring of south side of KV well field drawdown
	MH-417 (139 N21 E51 36DCDB1)	Depth to Water	Continuous	Alluvium	Monitoring of southeast side of KV well field drawdown
	MH-418 (139 N21 E51 24DDDB1)	Depth to Water	Continuous	Alluvium	Monitoring of southeast side of KV well field drawdown
	MH-419 (139 N20 E49 23ACCB1)	Depth to Water	Continuous	Alluvium	Monitoring of drawdown between well field and Bean Flat phreatophytes
	MH-420 (139 N20 E49 24ACAB)	Depth to Water	Continuous	Alluvium	Monitoring of drawdown between well field and Bean Flat phreatophytes
	MH-421	Depth to Water	Continuous	Alluvium	Monitoring of west side of KV well field drawdown
	RWX-209 shallow and deep	Depth to Water	Continuous	Alluvium /Vinini	Monitoring of northwest side of KV well field drawdown
	MRCMW	Depth to Water	Continuous	Alluvium	Monitoring of potential drawdown in Roberts Creek watershed
	LRCMW	Depth to Water	Continuous	Alluvium	Monitoring of potential drawdown in Roberts Creek watershed

Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
Kobeh Valley Groundwater	IGM-154	Depth to Water	Continuous	Alluvium	Pit area groundwater monitoring
	IGMI-234P	DTW, Chemistry	Continuous	Alluvium	Monitor groundwater elevation change in Whistler Range; Sentinel well
	IGMI-235P	DTW, Chemistry	Continuous	Vinini Fm	Monitor groundwater elevation change in Whistler Range; Sentinel well
	IGMI-237P	DTW, Chemistry	Continuous	Vinini Fm	Monitor groundwater elevation change in Whistler Range; Sentinel well
	TM1-B	DTW, Chemistry	Continuous	Alluvium	Monitoring of east side of KV well field drawdown
	Atlas 1	DTW/pressure	Continuous	Alluvium	Monitoring northwest of predicted 10 foot drawdown contour
	Bartine Ranch Well 1, 2, 3 (flowing)	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	Big Windmill	DTW/pressure	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between well field and pit area
	Colby Well	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	KV 064	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	Depco Inc	DTW/pressure	Continuous	Alluvium	Monitoring of drawdown between well field and Bean Flat phreatophytes
	Etcheverry Windmill	DTW/pressure	Continuous	Alluvium	Monitoring of west side of KV well field drawdown
	IGMI-MH-RWX-203 T	DTW/pressure	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between well field and pit area

Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
Kobeh Valley Groundwater	NDWR9211R	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	RWX-204	DTW/pressure	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between well field and pit area
	KFE	DTW/pressure	Continuous	Alluvium	Monitor groundwater elevation change in transition zone between well field and pit area
	KFW	DTW/pressure	Continuous	Alluvium	Monitoring northwest of predicted 10 foot drawdown contour
	Treasure Well	DTW/pressure	Continuous	Alluvium	Assess impact of pumping on artesian flows outside predicted 10 foot drawdown contour
	GMI-RWX-223	DTW/pressure	Continuous	Alluvium	Measure drawdown progression in well field
Kobeh Valley Streams	LRC (Lower Roberts Creek)	Flow, Water Quality	Continuous		Potential indirect impacts to perennial streams
	URC (Upper Roberts Creek)	Flow, Water Quality	Continuous		Potential indirect impacts to perennial streams
	MH-700 (Cottonwood Canyon)	Flow	Continuous		Potential indirect impacts to perennial streams
	MH-701 (Cottonwood Canyon)	Flow	Continuous		Potential indirect impacts to perennial streams
Kobeh Valley Springs	KV-002 (Potato Canyon)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-026 (Rutabaga)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts near well field
	KV-034 (Mud)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts near well field
	KV-035 (Lone Mtn)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts south of well field
	KV-044 (Hot)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts

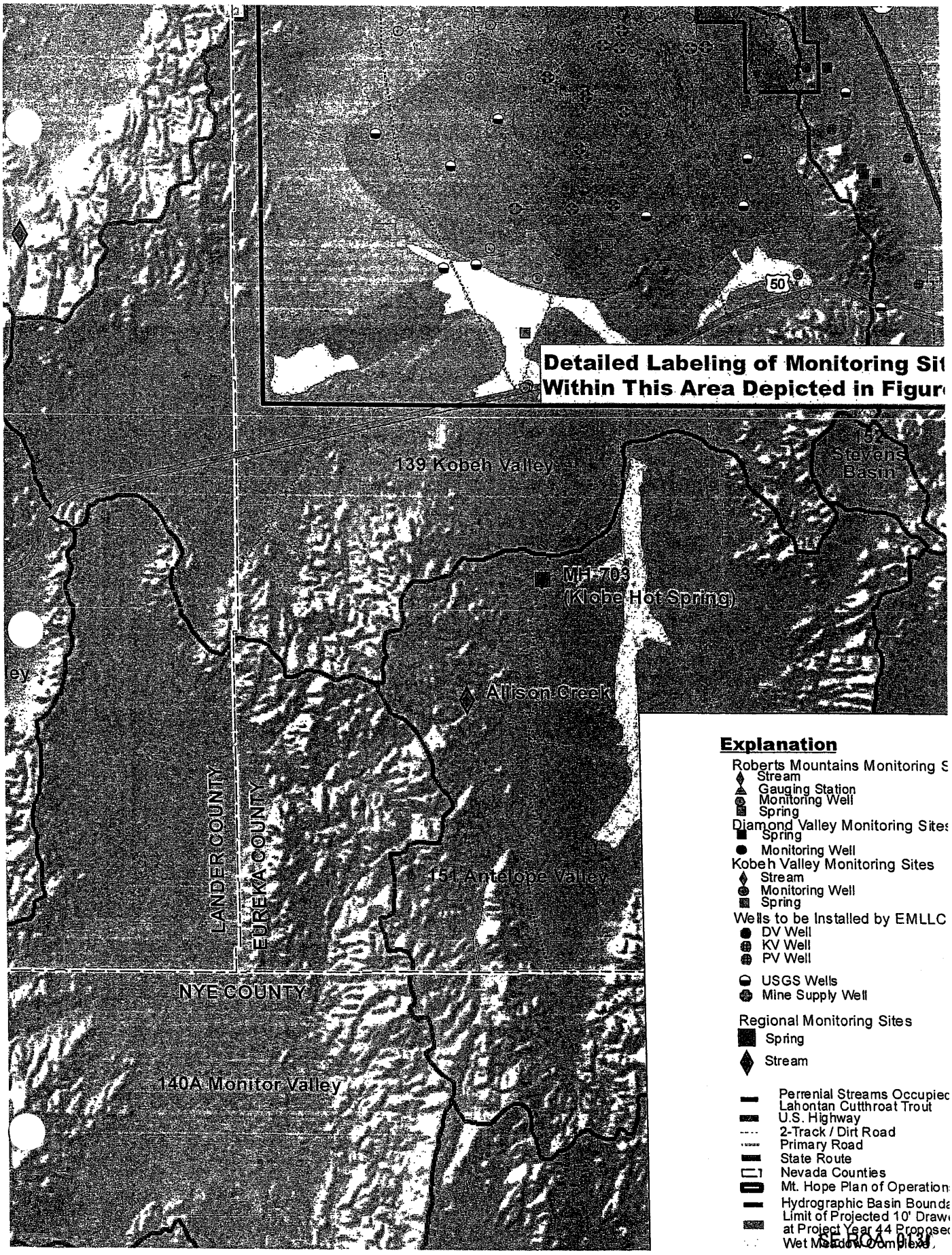
Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
Kobeh Valley Springs	KV-015 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-016 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	KV-020 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-6 (Unnamed)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-7 (Nichols Spring)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	MH -702 (Jack Spring)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts, west side of Roberts Mtn.
	MH-703 (Klobe Spring)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts in Antelope Valley
Pine Valley Springs	PV-059 (Dry Creek headwater spring)	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-060	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-061	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-062	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-063	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-064	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	PV-065	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-2	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-3	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts

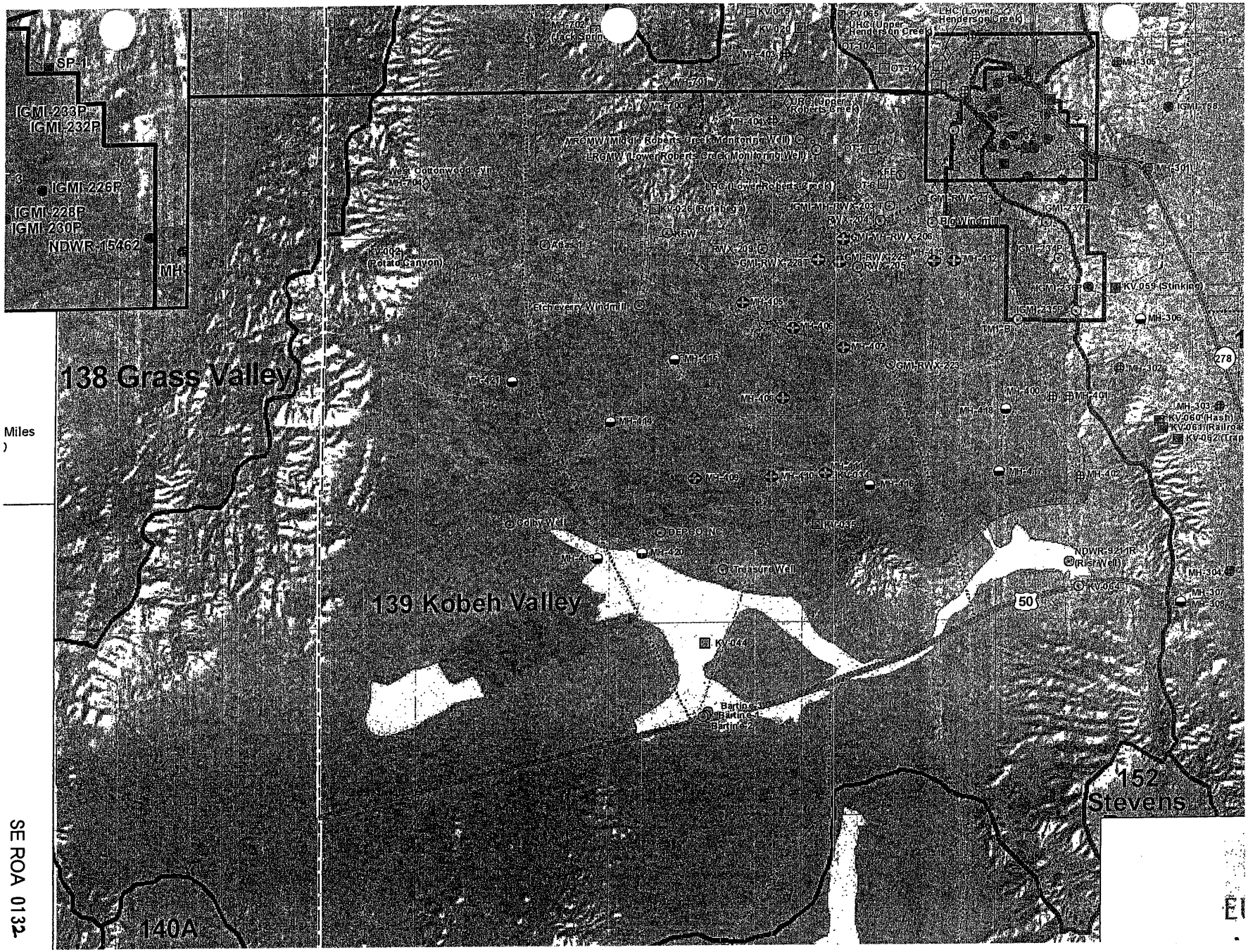
Area	Site Name(s)	Parameters	Frequency	Formation	Rationale
Pine Valley Springs	OT-5	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-10A	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
	OT-11	Flow, Photograph	Quarterly		Monitor potential indirect spring impacts
Pine Valley Streams	LBC (Lower Birch Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	LHC (Lower Henderson Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	UHC (Upper Henderson Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	LPHC (Lower Pete Hanson Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	UPHC (Upper Pete Hanson Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	Tonkin Springs	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	LVC (Lower Vinini Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	UVC (Upper Vinini Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
	WC (Willow Cr.)	Flow Rate	Continuous		Potential indirect impacts to perennial streams
Pine Valley Groundwater	MH-500	Depth to Water	Continuous	Bedrock	Sentinel well in mountain block south of Henderson Creek
	MH-501	Depth to Water	Continuous	Alluvium	Henderson Creek groundwater elevations
	MH-502	Depth to Water	Continuous	Bedrock	Sentinel well in mountain block east of springs in upper Henderson Creek

Table 2 - Biological and Meteorological Monitoring

Area	Site Name(s)	Parameters	Frequency
Wet Meadow Complexes in Roberts Mountains	Three to five vegetation transects in each of the WMC; locations to be determined	Species composition, species richness, and plant cover	Semi-Annually (May, July)
Phreatophytic vegetation in lower Kobeh Valley	Three to five vegetation transects in each of the phreatophyte vegetation communities; locations to be determined	Species composition, species richness, and plant cover	Transects - Semi-Annually (April, June)
Phreatophytic and riparian vegetation in lower Roberts Creek	Three to five vegetation transects in the watershed; locations to be determined	Species composition, species richness, and plant cover	Transects - Semi-Annually (April, June)
Phreatophytic and riparian vegetation in Henderson Creek	Three to five vegetation transects in the watershed; locations to be determined	Species composition, species richness, and plant cover	Transects - Semi-Annually (April, June)
Roberts Mountain	Not applicable	Remote sensing (Aerial photography or satellite imagery)	Initially for entire mountain; every two years for riparian areas.
Streams in Roberts Mountains	Roberts Creek, Vinini Creek, Henderson Creek	Macro-invertebrate monitoring	Annually (late summer/early fall base flow)
Mine site	Existing Mt. Hope meteorological station	Temperature, precipitation, humidity, wind speed and wind direction	Hourly
Roberts Mountains	Minimum of 3 high-altitude sites in Roberts Mountains; locations to be determined	Precipitation	To be determined

Attachment A
August, 2011


Detailed Labeling of Monitoring Sit
Within This Area Depicted in Figur
50
139 Kobeh Valley
152 Stevens Basin
MH-703
(Kobeh Hot Spring)
Allison Creek
151 Antelope Valley
LANDER COUNTY
EUREKA COUNTY
NYE COUNTY
140A Monitor Valley
Explanation
Roberts Mountains Monitoring S
Stream
Gauging Station
Monitoring Well
Spring
Diamond Valley Monitoring Sites
Spring
Monitoring Well
Kobeh Valley Monitoring Sites
Stream
Monitoring Well
Spring
Wells to be Installed by EMLLC
DV Well
KV Well
PV Well
USGS Wells
Mine Supply Well
Regional Monitoring Sites
Spring
Stream
Perrenial Streams Occupiec
Lahontan Cutthroat Trout
U.S. Highway
2-Track / Dirt Road
Primary Road
State Route
Nevada Counties
Mt. Hope Plan of Operation
Hydrographic Basin Bounda
Limit of Projected 10' Draw
at Project Year 44 Propose
Wet Meadow Complex


138 Grass Valley
139 Kobeh Valley
152
Stevens
140A
IGMI-233P
IGMI-232P
IGMI-226P
IGMI-228P
IGMI-230P
NDWR-15462
Miles
SE ROA 0132

PROOF OF SERVICE

Pursuant to NRAP 25(d), I hereby certify that on the 26th day of July, 2013, I caused a copy of the foregoing ***JOINT APPENDIX VOLUMES 1 THROUGH 8*** to be served on the following parties as outlined below:

VIA COURT'S EFLEX ELECTRONIC FILING SYSTEM:

Francis Wikstrom
Jessica Prunty
Cassandra Joseph
Dana Walsh
Gary Kvistad
Bradford Jerbic
Daniel Polsenberg
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Josh Reid
Theodore Beutel
Karen Peterson
John Zimmerman
Francis Flaherty
Paul Taggart
Michael Rowe
Gregory Walch
James Erbeck
Jennifer Mahe
Dawn Ellerbrock
Neil Rombardo
Ross de Lipkau

/ / /

/ / /

VIA US MAIL, POSTAGE PRE-PAID
ADDRESSED AS FOLLOWS:

William E. Nork, Settlement Judge
825 W. 12th Street
Reno, NV 89503

Dated this 26th day of July, 2013.

/s/ Therese A. Ure

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