GOLD, BROWN, LILAC QUARRIES

AMENDED
MINING
and
RECLAMATION PLAN

REVISION 2011

Prepared for:

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MINING

1. MINING OPERATION INTRODUCTION

The Brubaker-Mann, Inc. Gold, Brown, Lilac Quarries project is an existing mine site currently producing decorative colored-rock to support increasing Southern California market demands. A major reason for the demand for these products is the increasing concern over water. The use of rock as a low-maintenance landscape alternative to water-intensive grass is becoming a desirable alternative. Since the late 1950s, these quarries have provided three distinctively different colored rock products continuously under a vested mining right. Currently, the vested mine project operates under San Bernardino County Reclamation Plan 90M-07, as approved on June 26, 1990. The current Reclamation Plan expires December 31, 2020.

This plan outlines the future mining and reclamation plan for the Gold, Brown, and Lilac Quarries operated by Brubaker-Mann, Inc. Also provided in this plan is a detailed course of action for the reclamation of these quarries, including concurrent mining/reclamation procedures, revegetation test plot, and monitoring and maintenance of reclaimed land. As proposed in this plan, mining will continue for the next 25 years, or until December 31, 2037. This modification to an approved Reclamation Plan is being proposed to more accurately reflect current/future operations. This proposal incrementally increases the project area from the existing 47-acre site to a 47.2-acre project site. It will also provide for a slightly different configuration of the quarries to allow greater depth of excavations. Smaller quarry areas will be combined into a larger quarry that will be mined deeper to allow access to the desired orebody. All excavated material will continue to be processed offsite at Brubaker-Mann's mill complex located on Soap Mine Road, east of Barstow.

In general terms, the formerly separate quarry areas are identical as far as geology, hydrology, and overall descriptions. The quantities of rock mined and natural location of the different colors will allow three of the existing separate quarries to be combined into one larger quarry. Of the remaining two smaller quarries, one will not be mined at all in this revision and the other will continue to be mined independently of the larger quarry area. Up to 60,000 tons of marketable product will be produced annually from the

combined quarry areas over the next 25 years (until December 31, 2037), for a total of about 1.5 million tons over the life of the project. No other revisions to onsite operations are proposed within this plan.

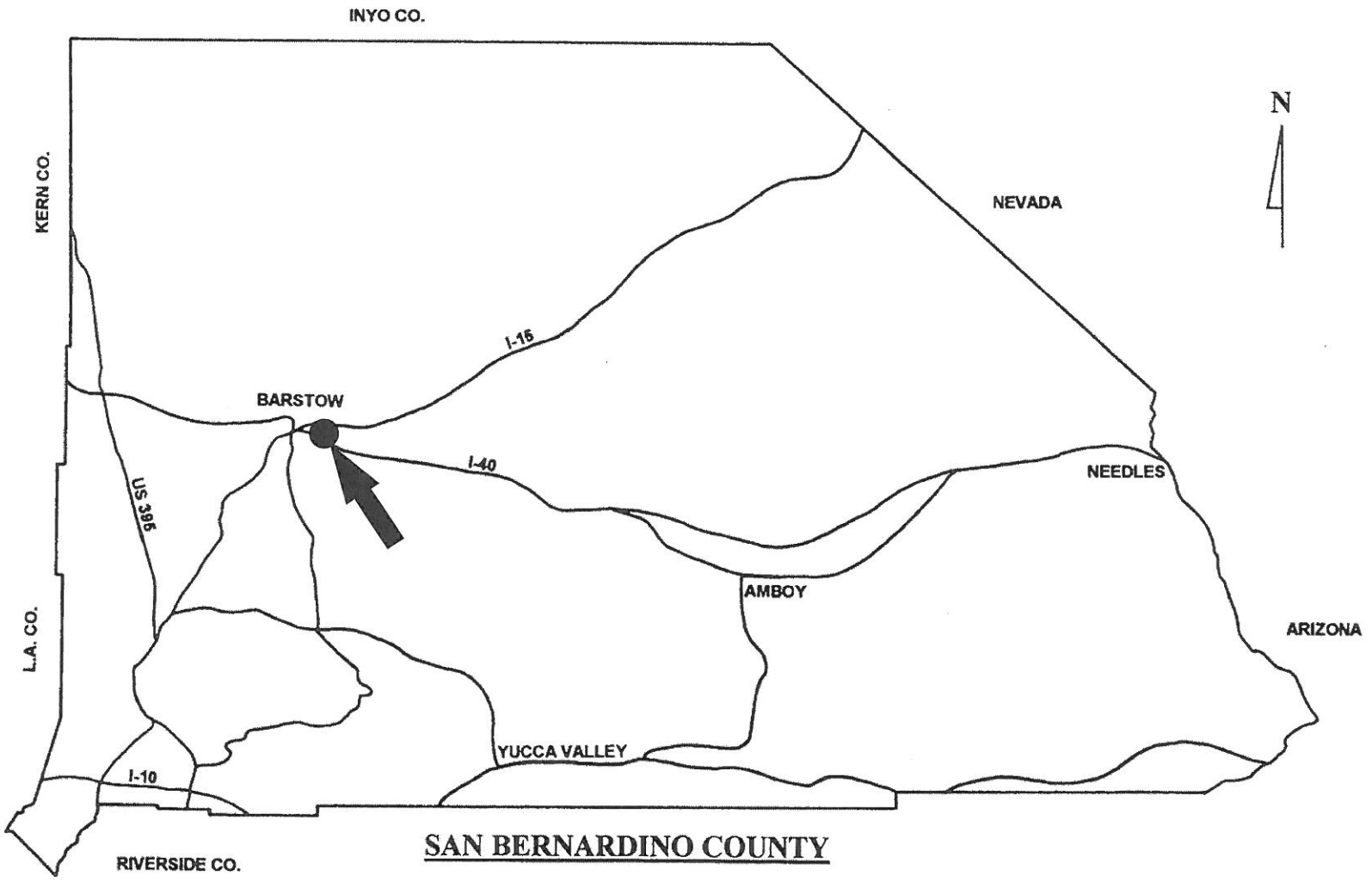
Location and Site Description

The mine site is located in central San Bernardino County (Figure 1 - General Location Map), approximately 4 miles east of Barstow and roughly 1.5 miles south of Interstate 15 (Figure 2 – Vicinity Map). More specifically, the project site is situated within the west 1/2 of Section 1 in Township 9 North, Range 1 West, S.B.B.M., as indicated on the Nebo, California 7.5' U.S.G.S. Quadrangle Topographical Map (Figure 3 – Extent of Holdings/Location Map).

Access to the mine site is provided by Fort Irwin Road, south from Interstate 15. Fort Irwin Road is paved for a short distance south of I-15, then turns to a graded dirt road net that courses through the Gold, Brown, Lilac Quarry site. From I-15, the road traverses southwesterly across private property owned by Brubaker-Mann, Inc. The parcel owned by Brubaker-Mann encompasses approximately 275-acres, and is described as:

APN 0424-041-09: The portion of the West 1/2 of Section 1, Township 9 North, Range 1 West lying Southerly of Interstate 15, totaling 275 acres, more or less.

The Brubaker-Mann, Inc. 275-acre land parcel is primarily undisturbed, excepting dirt roads and the small active quarry areas. Surrounding the site to the North, South and East is vacant open space privately-owned by Brubaker-Mann, Inc. The western boundary of the site is shared with BLM-managed vacant open space (APN 424-041-02). The proposed revision of mining operations will allow Brubaker-Mann to consolidate three existing small quarries (Lilac, Gold Quarry #2, and Gold Quarry #3) into one larger quarry. The Gold Quarry #1 will continue to be mined as a small independent quarry area, while mining of the Brown Quarry area is being withdrawn from the project. The Brown Quarry area has never been disturbed, so no reclamation is required due to withdrawal from the project. These minor quarry area reconfigurations will occur within a new project area of 47.2 acres, versus the existing 47-acre project site.



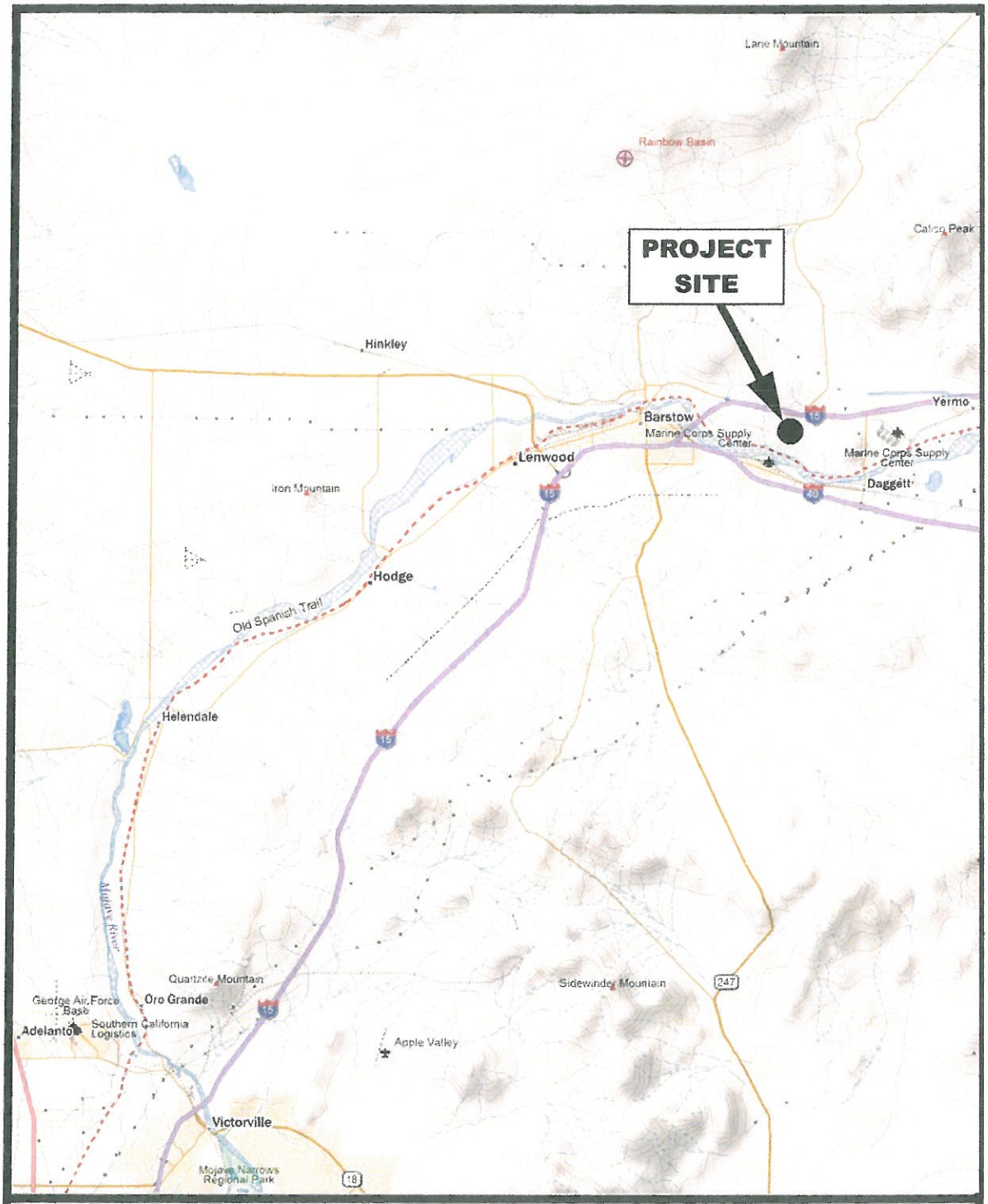
Scale: 1 Inch = 20 Miles

BRUBAKER-MANN, INC. - GOLD, BROWN, LILAC QUARRIES

GENERAL LOCATION MAP

● Project Site

Figure 1



Scale: 1 Inch = ~5 Miles

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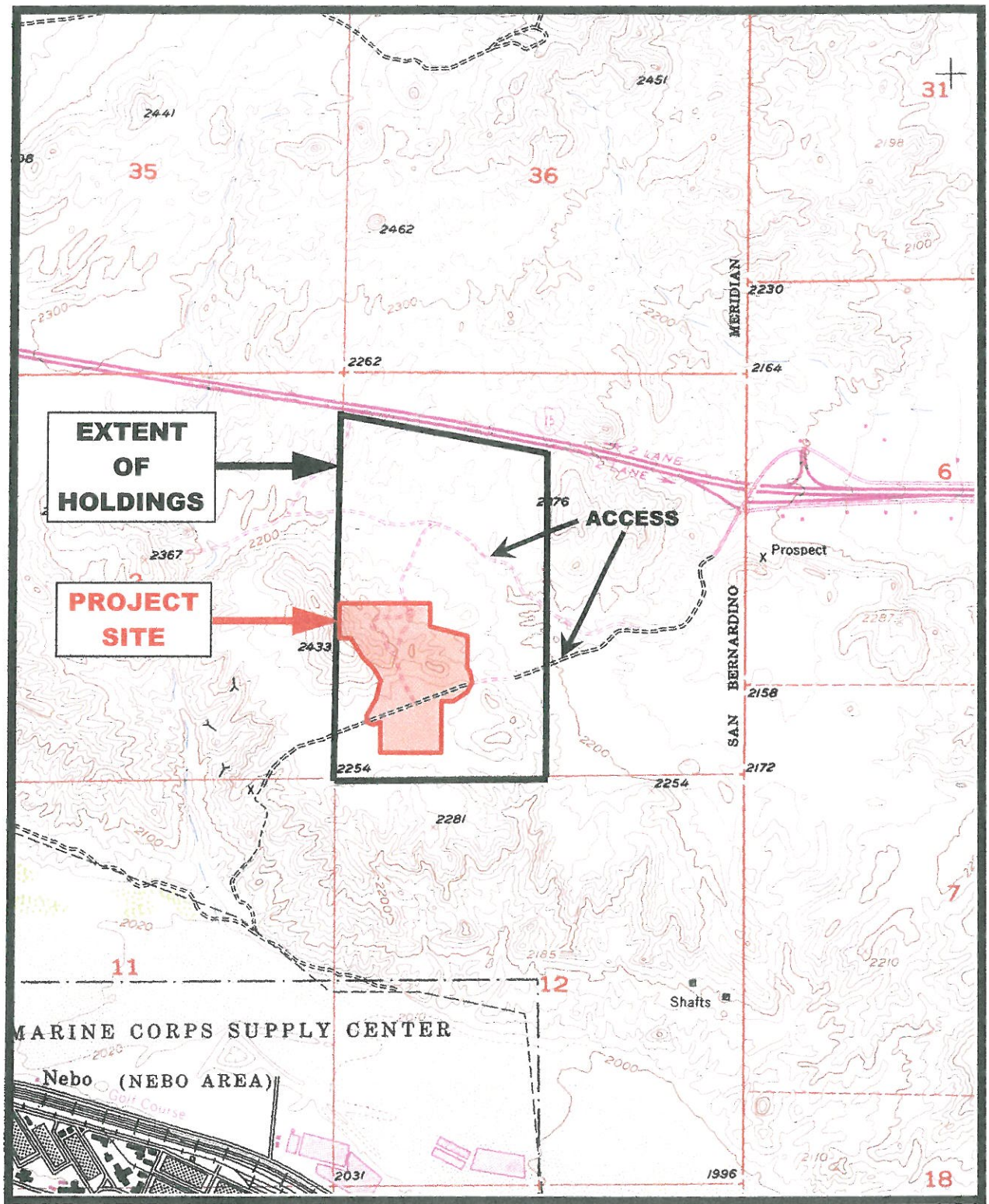
BRUBAKER-MANN, INC. - GOLD, BROWN, LILAC QUARRIES

VICINITY MAP

Map Source: © 2008 DeLorme (www.delorme.com) TOPO USA®

Figure 2



Scale: 1 Inch = 1,960 Feet

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BRUBAKER-MANN, INC. - GOLD, BROWN, LILAC QUARRIES

EXTENT OF HOLDINGS / LOCATION MAP

Map Source: USGS 7.5' Nebo, California Quadrangle

Figure 3

Mine Operations

This proposed revision project will generally continue to excavate decorative rock in the same manner as during past operations. Mining equipment is only mobilized to the project site as dictated by market demands. It is projected that active quarrying will occur between 50-200 days per year. When sufficient material has been extracted, it is stockpiled onsite and periodically transported to the mill complex, as needed.

Quarry areas will continue to be mined utilizing drilling and blasting, or via surface ripping with a large dozer if the rock structure allows, creating a basic open pit and a side hill quarry. Prior to excavating an undisturbed area, the surface is cleared and grubbed using a front-end loader. This surface vegetation/topsoil is then stockpiled for future revegetation efforts during reclamation.

Once cleared, excavations commence with an air track drill drilling a series of 2-3 inch diameter vertical holes into the active quarry area. Once the round is drilled out, explosives are loaded into the drill holes, and blasting is initiated (See Section 6. Blasting for additional details). Quarry benches of 30 feet high and 60 feet wide will be created in the main proposed quarry area (Lilac, Gold Quarry #2 and #3). The southern portion of the combined Lilac, Gold #2 and Gold #3 quarry contains some overburden material (non-spec rock) that will also be removed via drilling and blasting. This non-spec rock material will be stockpiled and sold as a product or will remain onsite subsequent to reclamation in stockpiles not higher than 20 feet. Quarry benches of 20 feet high by 40 feet wide will be created in the Gold Quarry #1 area. Once a sufficient quantity of blasted rock material is stockpiled near the active quarry face, mining equipment is removed from the site.

As rock sales dictate, a front end loader is transported to the mine site and rock is loaded from the blasted rock stockpile for transportation to the mill site via 20 ton end dump haul trucks. All rock processing is accomplished at the mill site. The products recovered from the Gold, Brown, Lilac Quarries Project are used for both roofing rock and landscaping rock. Finish product sizing usually ranges from 3/8" to 2" and larger for projects such as decorative boulders for special landscape projects.

2. MINE WASTE

The Gold, Brown, Lilac Quarries Project will only have non-spec rock (overburden) and processing fines as a mine waste. Non-spec rock consists of off-color material and primarily exists in the southern portion of the proposed larger quarry area. This material will be removed to gain access to the desired colored-rock orebody. All non-spec rock will be stockpiled separately from the premium marketable material, in areas not subject to direct water flows during precipitation events.

Quantities of non-spec rock will be highly variable over the project life, with higher quantities encountered as the quarry becomes more fully developed. It is projected that up to 20% of material excavated near the end of the project life will be non-spec rock, ramping up gradually to this ratio through the project life. This material will be excavated and stockpiled for subsequent sales to the public, incorporated into site reclamation. The non-spec rock overburden may occasionally be marketable for transient uses and will be sold periodically to reduce the quantity remaining onsite. During reclamation, any remaining non-spec rock stockpiles will be graded down to reduce stockpile heights to a maximum of 20-feet, and then revegetated in the same manner as the remainder of the project site.

3. PLANNED ORE PROCESSING METHODS ONSITE

No ore processing is proposed for onsite activities. Crushing and screening of the decorative rock material will occur exclusively at Brubaker-Mann's mill complex in Barstow.

4. PRODUCTION WATER DATA

The Gold, Brown, Lilac Quarries project only requires water for dust suppression during active mining/hauling activities. Fresh water is acquired from a municipal water supply in Barstow and imported to the site as needed using 4,000 gallon over-the-road water trucks. During active onsite operations, approximately 1,600 gallons per day of fresh water is applied to the haul roads and active quarrying areas, or approximately 320,000 gallons (0.98 acre-feet) per year. Recycling of water is impractical and not proposed. Drinking water is supplied to employees for consumption.

There is no excess or wastewater produced during quarry operations; all water used onsite is consumed via evaporation and/or percolation into the soils. Storm runoff water will continue to be directed into an onsite containment area (depression) near a quarry face or within the enclosed quarry area. No contaminants such as processing chemicals, detergents, acid drainage, fuel oil or gasoline will be exposed to water flows onsite throughout the life of the project.

5. EROSION AND SEDIMENTATION CONTROL

The project site is located within a semi-arid region of San Bernardino County, and receives approximately 4 inches of precipitation each year. Water flows only occur onsite during the infrequent periods of precipitation, primarily caused by summer thunderstorms. The project site excavation areas are designed to retain water flows onsite through grading towards the quarry face in the smaller quarry area and through the development of the enclosed larger quarry area. The quarry floor of the Gold Quarry #1 Quarry will be maintained with a -1/2% grade down toward the lowest bench face for water/sediment retention. The proposed Gold Quarry #2, #3, and Lilac Quarry excavation area is designed to be up to 200 feet deep, with no outlet, thereby retaining all water flows.

Areas on the project site that are not designated quarry areas consist of roads, stockpile areas, and undisturbed desert areas. Water flows in these areas will naturally course through, and exit the site with minimal contact with disturbed areas. Significant drainage channels/ravines do not exist on the project site, so all flows are low energy, sheetflow drainages. Stockpiles of excavated materials (e.g. processing fines, non-spec rock, product, etc.) will be located outside of direct water flow ways to prevent erosion. Stockpiles that may become inactive for a period of time will be covered with coarse aggregate or planted with native vegetation to further prevent erosion from wind and/or water.

6. BLASTING

Blasting will be utilized as the primary method of material extraction at the Gold, Brown, Lilac Quarries project site. All quarry areas will probably require blasting due to the nature of the regional geology. As in past operations, blasting activities will continue to be the responsibility of a blasting contractor. The contractor will be responsible for all

storage/use of blasting materials to ensure safety and compliance will all applicable laws and regulations. Storage of explosives will NOT occur on the project site, but at a legally permitted offsite location.

When blasting occurs at these quarries, the area is visually checked for persons, and any possible entrance to the blasting area is guarded until the shot is fired. There are no structures or residents in the immediate area, and Interstate 15 is greater than ½-mile away. In the interest of minimizing external blasting effects, either long or short delays will be used as long as the delay period is 9 milliseconds or greater. Additionally, all blast parameters will adhere to methods recommended in U. S. Bureau of Mines Report of Investigations RI 8507 for blasting vibration control to reduce blasting effects on offsite structures and residents.

After each blast is safely cleared of possible misfires pursuant to MSHA regulations, the blasted rock will be stockpiled at the face of the shot, until hauled to the mill complex for processing.

RECLAMATION

1. LAND USE

The Gold, Brown, Lilac Quarries project is a vested mine operation currently operating with an approved San Bernardino County Reclamation Plan 90M-07, approved June 26, 1990. The project consists of a 47.2-acre portion of a 275-acre land parcel located 4 miles east of Barstow, south of the Calico Mountains, in west-central San Bernardino County. The property on which the quarry is located is privately-owned by Brubaker-Mann, Inc. Existing improvements on the project site include the active quarry areas and graded dirt roads. No other improvements exist or are proposed for the project site.

Interstate 15 is the nearest major development to the project site, and is located approximately 0.6 miles north of the site (1.5 miles via dirt road). All surrounding land is vacant open space comprised of private lands and public lands managed by the U.S. Department of Interior - BLM. The project site and all surrounding lands are Open Space, General Plan Land Use District Zoning of Resource Conservation (RC), and Improvement Level 3.

The nearest residence is located approximately 1.5 five miles to the northwest of the site, on the north side of Interstate 15. The nearest residential enclave is the City of Barstow located approximately 4 miles to the west.

2. VISIBILITY

The Gold, Brown, Lilac Quarries project is located south of Interstate 15, set amid various small hills with maximum elevations up to approximately 2450 feet. These hills effectively screen the project visually from travelers on Interstate 15. There may be small "windows" of visibility of the project site from Interstate 15, however they are brief and generally don't allow cognitive recognition of the site. There are no other facilities (i.e., highways, residences, commercial developments, and recreation areas) in the surrounding area that contain the project site within their viewshed. No mitigation is proposed (e.g., landscaping, berms, fences, modification of operation, etc.) to further decrease visibility of the project site.

3. VEGETATION

Natural vegetation at the project site is typical of the geologic and environmental setting of this region of the Mojave Desert. For additional details, refer to Appendix A – Focused Survey and Resurvey for Agassiz's Desert Tortoise, Habitat Assessments for Burrowing Owl and Mohave ground squirrel, and General Biological Resource Assessment for the Brubaker-Mann, Inc. Gold, Brown, Lilac Quarries Proposed Expansion Areas Near the Community of Yermo, San Bernardino County, California.

4. WILDLIFE

Wildlife observed at the site are typical of the area. For additional details, refer to Appendix A – Focused Survey for Agassiz's Desert Tortoise, Habitat Assessments for Burrowing Owl and Mohave ground squirrel, and General Biological Resource Assessment for the Brubaker-Mann, Inc. Gold, Brown, Lilac Quarries Proposed Expansion Areas Near the Community of Yermo, San Bernardino County, California.

5. RECLAMATION AND RECLAMATION SCHEDULING

The goal of reclamation at the Gold, Brown, Lilac Quarries project is to return the site to privately-owned vacant open space consistent with the Resource Conservation Land Use District. Complete reclamation of the site will include:

- Final grading of project areas to reduce slope ratios
- Mitigation of any potential hazards
- Revegetation with indigenous species

Generally, reclamation will occur concurrently with ongoing mining operations, to the extent practical. Final reclamation will occur within five years of the termination of the excavation activities. Reclamation of the project site will be phased depending on market demands for the material and advancement of each individual quarry.

A revegetation test plot has been established near the Gold Quarry #1 area (see Reclamation Plan Map – Sheet 2 of 2). Established in 1997, the test plot has provided practical information that will eventually be applied to the remainder of the project site, as disturbed areas become available for revegetation. Although some success has

been achieved, additional testing may continue at the test plot site to further improve seeding methods.

As mining advances in the reconfigured quarry areas, some final benches will be created. The level bench surfaces will then be potentially ready for revegetation, depending on the results of the test plot. Once a successful revegetation method is achieved by the test plot program, other quarry benches/areas can begin to be revegetated as mining continues at the active excavation area. This process will continue through the life of the project, with final revegetation monitoring determining success of reclamation.

Since there are no existing/proposed structures, buildings, processing equipment, etc. on the project site, only reclamation of the excavation/disturbed areas will be necessary to achieve a fully reclaimed site.

6. REVEGETATION

The ultimate goal of revegetation of the project site is to accelerate the reestablishment of native vegetation subsequent to mining activities, returning the site to similar conditions that existed prior to mining. Once a quarry bench, non-spec rock stockpile, or other project area becomes idle and will not be disturbed by continuing operations, the revegetation process can begin with the placement of "soil islands" on these areas. Soil islands will basically consist of site collected topsoil, processing fines (sand, silt, clay), and any site collected organics (shrubs, bushes, grasses). The soil island will essentially act as a base from which other naturally occurring seeds can potentially develop and spread, and provides a much better chance of success of revegetation than alternative methods. Naturally, the site contains very little soil, with the orebody readily exposed. It is not the intent of this Reclamation Plan to propose resoiling and revegetating areas to the extent that they become inconsistent with surrounding topography.

The soil islands will cover approximately 25% of the designated initial revegetation area and will average approximately one foot in thickness. These islands will be seeded with a mixture of plant species that are identified in the Revegetation Plan prepared by Circle Mountain Biological Consultants, Inc. specifically for the this project site. Seeds will be obtained from a Biologist-recommended list of commercial seed suppliers, or collected

from the project site and nearby areas. A seed mix using both annuals and natives will be developed and planted at this site.

A revegetation test plot has been established and is located near the Gold Quarry #1. The purpose of the test plot was to determine the highest rate of success for seeding the soil islands during revegetation of the disturbed site. Seven different sub-plots were created to compare different revegetation protocols in assessing the best potential success rates. Several different seeding parameters were tested and a significant amount of site-specific revegetation information was gained. Information and seeding methods learned will eventually be applied to soil islands on the remainder of the project site areas, as they become available for revegetation.

Additional testing at the test plot will continue in the coming years, and progress of these revegetation activities will be assessed and documented. If necessary, a qualified person will recommend adjustments to the seed mixture so the most successful results can be achieved. This will be done in coordination with officials of San Bernardino County. When the most successful seeding method has been developed, and every subsequent operating year, soil islands will be placed on those project areas that will not be impacted by further site operations. Successful revegetation will be achieved when the following performance criteria are met:

Cover	*6.4% cover of native perennials per 25m^2 plot*
Density	*8.7 native perennials per 25m^2 plot*
Species richness	*5.6 native perennials per 25m^2 plot*
Survival of transplanted cacti	*50% survival all species of cacti per 25m^2 plot*

For additional revegetation details, refer to Appendix B – Baseline Vegetation Analysis prepared by Circle Mountain Biological Consultants, Inc. and Appendix C - Revegetation Plan prepared by Circle Mountain Biological Consultants, Inc.

7. CLEANUP

Upon cessation of mining activities no later than December 31, 2037 (or 25 years from the date of approval), any residual equipment not required for further reclamation will be removed from the site. This would include any loaders, dozers, water trucks, etc. It is not expected that any equipment will be on the site at project's end, as all project

equipment is only onsite during active mining operations. Refuse is removed daily from the site by operating personnel, and none will remain on site subsequent to the end of active excavations. All refuse will continue to be appropriately disposed offsite in permitted landfills. Structures are not proposed and will not exist on the project site throughout the life of the project.

8. POST-RECLAMATION AND FUTURE MINING

Upon completion of final reclamation of the project site, the site will consist of one small quarry area with four or five benches, and one larger benched quarry area up to 200 feet deep. All disturbed project areas (i.e. project slopes, accessible quarry benches, etc.) will be revegetated with site-indigenous plants to blend with the surrounding undisturbed areas. The road network currently providing access to the site will remain for future access to the privately-owned parcel. There are no highways, residences or commercial developments within the vicinity that will be visually affected by the project after reclamation.

Future mining of the reclaimed site or nearby properties will not be precluded by the proposed mining or reclamation activities. This project was designed to supply the projected decorative rock market demands for the next 25 years with two relatively small extraction areas situated on a much larger land parcel. Future mining of the reclaimed site could occur because the orebody strata underlying the project site extends to an undetermined depth. This orebody strata will conceivably supply rock aggregates beyond the 25 year life of this proposed project, if desired or permitted by future agencies. The proposed final use of the reclaimed site will be privately-owned vacant open space.

9. SLOPES AND SLOPE TREATMENT

All final excavated benches and project area slopes will remain after cessation of mining activities, as depicted on the Reclamation Plan Map. The Gold Quarry #1 area will be finished as a hillside quarry with four or five benches 20 feet high by 40 feet wide (2:1 horizontal:vertical overall slope). The larger combined Gold Quarry #2, Gold Quarry #3, and Lilac Quarry will remain with enclosed quarry benches (30 feet high by 60 feet wide) up to 200-feet deep with a 2:1 (horizontal:vertical) overall slope ratio. If steeper overall slope ratios are considered in the future, a quarry highwall analysis (Slope

Stability Analysis) shall be submitted to the County for review to ensure that all final quarry slopes achieve a minimum slope stability factor of safety that is suitable for the proposed end use as required by SMARA Minimum Reclamation Standards. Should any final quarry slopes fail to attain the minimum standards, the operator will implement such measures necessary to bring the slopes into compliance.

The processing fines remaining at the end of mining will be incorporated into revegetation activities, as previously described. Any remaining non-spec rock stockpiles that were not sold as a product during the project life will be graded down to a maximum height of 20-feet, with 2:1 side-slopes. This material will then be revegetated and effectively stabilized to prevent potential landslides, earth flows, rock falls, and/or erosion. No significant fill slopes or processing fines stockpiles will remain onsite subsequent to reclamation.

10. PONDS, RESERVOIRS, TAILINGS, WASTE

As previously described, project waste products (i.e. processing fines and non-spec rock) that are not sold as a product will be graded down and/or utilized to help produce the growth media required for the soil islands. This material will be an integral part of the proposed revegetation activities, which will benefit from this material.

There will be no reservoirs, dams, or embankments established throughout the life of the project for purposes of major water retention. The proposed project area will have the potential to retain a significant amount of water, however, regional drainage and precipitation characteristics do not provide the capability to introduce significant water flows into the quarry. Ponding will occur within water flow retention areas of quarry areas during heavy rainfall, but will naturally evaporate/percolate rapidly. Any other retained storm waters will continue to percolate toward the natural groundwater table below and any deposited sediments removed for incorporation into revegetation activities.

11. SOILS AND FINE TEXTURED WASTE

The quarry areas being mined consist of various rock strata of the Daggett Butte formation with relatively sparse topsoil and vegetation. The rock itself is so near the surface that it is exposed in many areas, often by prominent outcroppings. It is

precisely because of this dramatic exposure that mining is economical in this location. Topsoil that exists on proposed mining areas will be removed, stockpiled and labeled with conspicuous signage prior to aggregate extraction activities. Topsoil will be removed only to allow advancement of the working excavations, so as to preclude any unnecessary surface disturbance. The stockpiled topsoil will be utilized to enhance the composition of the growth media for the revegetation soil islands discussed previously.

Any unsold processing fines onsite and the end of mining will be blended with stockpiled topsoil material to aid production of the growth media for the soil islands, as previously described. Additionally, stockpiles of processing fines that were produced from the crushing/screening plant at the mill site in Barstow will continue to be periodically imported and maintained at the mine site. To the extent that resoiling is needed, these fines could be used to augment available onsite topsoil. It would be an excellent use of this material and would remove it from the mill site area. Only crushing/screening fines that originated from the Gold, Brown, Lilac Quarries project site will be utilized in revegetation activities onsite.

12. DRAINAGE AND EROSION CONTROLS

The drainage system remaining after mining activities cease will essentially be the same as during normal active excavations. Erosion occurring within the quarry areas during and after reclamation will be retained within the quarry floors due to grading in the smaller quarry and the confinement nature of the larger quarry area. The water retained within the quarries will not impact local roads or adjacent properties because waters will not be discharged from the project site. Additionally, revegetation of all appropriately finished slopes and benches will minimize any erosion that may occur on site. The reclaimed project site as designed will not introduce significant changes to drainage runoff, erosion, sedimentation, streamflow, or streambank stability.

13. PUBLIC SAFETY

During all proposed mining and reclamation activities, public safety measures will be undertaken to the extent practical. Due to the remote location and lack of visibility by the general public, fencing of the site is not proposed. A locking gate will continue to be maintained near the entrance of the mine site. The gate has proven successful in limiting access to the site by the general public. Conspicuous signs will be posted at

various locations along the perimeter of the proposed site warning the public of site operations. The extraction site will comply with all federal (MSHA) and California OSHA mine safety regulations concerning operating standards. Workers, including contract labor, will be trained in mine safety and first aid with annual refresher courses as required by Federal and State Regulations. All elevated inter-quarry roads as well as the perimeter of the proposed large quarry area will be lined with safety berms, to prevent equipment operators or the stray off-roader from trespassing onto adverse slopes.

Upon cessation of mining activities, final highwall and quarry benches will be cleared of large rocks or other debris and continue to remain secured from public access via the locking gate. Any other potential hazards within the project site will be removed prior to final reclamation. Warning signs will remain along the perimeter of the project site to discourage public access. After reclamation activities have been completed, the site will return to privately-owned vacant open space managed by the legal land owner.

14. MONITORING AND MAINTENANCE

The existing Brubaker-Mann Gold, Brown, Lilac Quarries mine site is an active, operating mine site with approximately 28 acres of land disturbance as of the end of 2011. The disturbance of the existing environment is documented and tracked annually through submittal of a Mining Operation Report to the California Division of Mines and Geology, as well as Mine Inspections performed by officials of San Bernardino County.

Throughout proposed project operations, Brubaker-Mann, Inc. will be responsible for carrying out the Maintenance and Monitoring Program based on the San Bernardino County-approved Reclamation Plan and Conditions of Approval. The Monitoring and Maintenance Program typically consists of an annual inspection and report that assesses compliance with the Conditions of Approval, including revegetation, public safety measures, water quality, erosion control treatments, etc. Brubaker-Mann, Inc.'s implementation of mitigation measures and the status and success of revegetation will also be assessed annually. Brubaker-Mann, Inc. will continue to submit annual Mining Operation Reports to the California Division of Mines and Geology as required by SMARA.

The monitoring of active and reclaimed slopes, revegetation activities, and other reclamation activities will be accomplished by San Bernardino County Officials as an essential part of their annual SMARA inspection.

15. RECLAMATION ASSURANCE

Brubaker-Mann, Inc. currently maintains records of an Irrevocable Letter of Credit on file with the San Bernardino County Land Use Services Department that provides reclamation assurance for the existing operations. A new financial assurance mechanism, based on this proposed plan, will be approved and established to continue financial assurance for ongoing operations in compliance with SMARA, Public Resources Code Section 2710 et seq. and follow the Surface Mining and Reclamation Act Financial Assurance Guidelines adopted by the State Mining and Geology Board January 19, 1993. The Guidelines implement Public Resources Code Section 2773.1 and were adopted pursuant to the requirements of Public Resources Code Subsection 2773.1(f).

GEOLOGY

The Gold, Brown, Lilac Quarries Project is situated within the Tertiary Daggett Butte Formation, which is composed of lacustrine limestone, sandstone and conglomerate, granite conglomerate and breccia, andesite breccia and olivine basalt flows (McCulloh, T.H., 1965, USGS OFR 65-107). The strike of these materials run generally northwest to southeast, dipping to the southwest. There are no major fault lines within the project site boundary. East and south of the site are flat lying alluvial deposits. The beginning elevation of these alluvial deposits is approximately 2260 feet.

The gold rock is situated on both sides of the main access road (see Mine Plan Map). West of the access road some of the gold rock contains trace amounts of bentonite which leaches out and causes discoloration of the gold rock when exposed to water. Over a period of time, the bentonite dissipates and the rock can be utilized. East of the access road there does not appear to be inherent bentonite, and mining in this area will continue for approximately the next 25 years.

The lilac rock adjoins the gold rock in the northeast section of the project site. The lilac rock appears to be between the 2260 and 2280 elevations, then disappears to the southeast in about 300 feet.

The brown rock lies in an area bordered by the 2260 elevation contour, the west property line, and an approximate N40°W bearing where it intersects the 2260 contour about 700 feet east of the west property line.

The mine site will be subject to ground shaking during earthquake events. There are no other local geologic conditions that could adversely affect the project such as Special Studies Zones, County Fault Hazard Zones, landslides, mudflows, Liquefaction Hazard Areas, differential settlement, hydroconsolidation, collapsible or expansive soils, wind erosion, water erosion, sedimentation, or inundation due to earthquake-induced dam failure.

HYDROLOGY/GROUNDWATER

The existing project site is located between the 2220 and 2400 foot elevations amid a group of small hills in west-central San Bernardino County, approximately 4 miles east of Barstow. Climate conditions are typical of the Mojave Desert. Annual temperatures range from 25°F in winter to 125°F during the summer, with annual rainfall averaging 3 to 4 inches. The area does experience periodic thunderstorms with occasionally heavy short-term rainfall rates that could produce minor flash flooding.

There are no large areas that drain into the site; water flows that occur onsite generally originate from the small hills/valleys in the vicinity down to the alluvial deposit below the site. There are no major ravines crossing the project site, and mining will not interfere with the majority of natural water flows that will flow through the site. Onsite water flows near the active excavations will continue to be directed into quarry floor low spots for onsite retention. By retaining some of the flows onsite, adverse effects to adjacent properties should continue to be insignificant.

Depth to ground water is greater than 300 feet below the natural ground surface. The proposed project excavations will not impact the future water table. Water to be used onsite (dust suppression activities) will continue to be acquired from a municipal supply in Barstow and imported to site as needed. Water used for onsite operations will not affect the quantity, quality, or depth of groundwater in the region.

The proposed operation will not introduce any toxic substances, contaminates, or degrade the quality of groundwater in any other way. The site is also not within, or upstream of, any State or County constructed ground water recharge area. There are no stream gauging stations within the site nor are any proposed.

LIST OF PREPARERS

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APPENDICES