RECLAMATION PLAN FOR Golden Girl Placer Mine(name of Mine) MINING OPERATION

Note: This prototype, developed by the State Mining and Geology Board (Board), is intended to assist smaller-scale mine operators in environmentally non-sensitive areas to conform to the requirements of the Surface Mining and Reclamation Act (SMARA) and related Board regulations. It serves as an example of an acceptable reclamation plan format. The prototype is not intended to place any additional requirements on mining operators, nor to limit lead agency control in implementing SMARA's reclamation requirements.

Please print or type, attach additional sheets if necessary

CALIFORNIA MINE ID# [if one has been assigned]:

72 Red Dog Road, Nevada City, Ca
N MAP IS ATTACHED
3
fapplicable]: Charles Watson – Advanced Geologic Exploration, Inc

Page 1

Reclamation Plan

GENERAL MINING OPERATION INFORMATION

MINED MINERAL COMMODITY (IES): gold, silver platinum, garnet, aggregate				
ESTIMATED ANNUAL PRODUCTION: 250,000 cubic yards per year				
ESTIMATED TOTAL PRODUCTION: approx. 3 million cubic yards				
TOTAL NUMBER OF ACRES TO BE DISTURBED BY THE SURFACE MINING OPERATION: approx. 50				
TOTAL NUMBER OF ACRES TO BE RECLAIMED: 50				
MAXIMUM ANTICIPATED DEPTH OF MINING: 220 FEET; 2615 ELEVATION (mean sea level)				
START UP DATE [indicate whether actual or proposed]: proposed 2008				
SITE MAP: ATTACH A TOPOGRAPHIC MAP OF LANDS THAT WILL BE AFFECTED BY MINING OPERATIONS. THE MAP SCALE SHOULD BE 1"=100' TO 1"=500' SO THAT THE FOLLOWING MAY BE IDENTIFIED EASILY:				
EXISTING SITE CONDITIONS: PROJECT BOUNDARIES, EXISTING SURFACE TOPOGRAPHY WITH CROSS SECTION, RAILROADS, UTILITIES, ROADS, DRILL HOLES, WATER WELLS, MONITORING WELLS, STREAMS, VEGETATION, AND ANY OTHER SURFACE FEATURES RELATED TO THE MINING OPERATION OR RECLAMATION; MINING OPERATION FEATURES: PROPOSED ACCESS ROADS, SETBACKS, LOCATION AND VOLUME OF TOPSOIL STOCKPILES, CREST, TOE, AND VOLUME OF OVERBURDEN STOCKPILES, CREST AND TOE OF PIT(S), LOCATION OF PROCESSING FACILITIES, EROSION CONTROL FACILITIES, SETTLING PONDS, TEMPORARY STREAM DIVERSIONS, AND EQUIPMENT STORAGE AREAS; FINAL SITE CONFIGURATION: RECLAIMED DRAINAGE AND SURFACE CONFIGURATION, EROSION CONTROL FACILITIES, AND PROPOSED FINAL TOPOGRAPHY WITH CROSS SECTION.				
☑ CHECK BOX IF SITE MAP IS ATTACHED				
(1) DESCRIBE THE ENVIRONMENTAL SETTING OF THE MINE SITE, INCLUDING THE FOLLOWING: PROVIDE A GENERAL DESCRIPTION OF VEGETATION AND A LIST OF PLANTS CURRENTLY ON SITE THAT MAY BE SUITABLE FOR RECLAMATION:				
The project area is within the Red Dog Mining District. It was extensively hydraulicly mined during the late 1800's to the early 1900's. Former mining operations suddenly ceased leaving the area in a "devastated state". Remnant hydraulic workings include mined-out gravels to bedrock, cliffs and sluice tailings. The property was stripped of all vegetation during the former mining operations. Vegetation species is currently a sparse combination of mixed conifer, Manzanita and grasses. There are approx 3,000,000 cu. yds. of unmined aurrifurous gravels on the site.				
(2) ADDRESS THE PRESENCE/ABSENCE OF SENSITIVE SPECIES, SENSITIVE HABITATS [WETLANDS, VERNAL POOLS, ETC.]. ADDRESS SPECIES, HABITATS THAT ARE CONSIDERED SENSITIVE WITHIN THE LEAD AGENCY'S JURISDICTION [eg. Oak, Woodland, Bishop pine forest].				
Hanover Environmental Services, Inc. performed biological resources assessment of the Golden Girl Mine property. "No special status species were observed, however, potential habitat for Foothill yellow-legged frog (Rana boylii), a DFG species of special concern, occurs within the Biological Survey Area."				
IGENERAL MINING OPERATION INFORMATION con't1				

(1) DESCRIBE THE GEOLOGY OF THE AREA SURROUNDING THE MINE SITE:

Tertiary gravels overlie Sierra basement rock. The thickness of the Tertiary gravels is a maximim of 220'.

(2) DESCRIBE THE GEOLOGY OF THE AREA TO BE MINED:

Tertiary gravels overlie Sierra basement rock. The thickness of the Tertiary gravels is a max of 220'.

DESCRIBE THE TYPE OF MINING TO BE EMPLOYED [eg. quarry/ truck and shovel operation]:

Open pit placer mine.

GENERAL LEAD AGENCY INFORMATION

LEAD AGENCY:	Nevada	County	Planning	Department
--------------	--------	--------	----------	------------

STAFF CONTACT: Tod Herman

TELEPHONE NUMBER: 530-265-1257

MAILING ADDRESS: 950 Maidu Avenue Nevada City, CA 95959

Tod.herman@co.nev.ca.us

USE PERMIT NUMBER [if applicable]: pending

DATE PERMIT WAS APPROVED AND/OR AMENDED:

PERMIT EXPIRATION DATE:

[GENERAL LEAD AGENCY INFORMATION con't]

SMARA SECTIONS 2770 AND 2773.1 REQUIRE MINE OPERATORS TO OBTAIN A LEAD AGENCY APPROVED FINANCIAL ASSURANCE TO ENSURE RECLAMATION OCCURS PURSUANT TO THE RECLAMATION PLAN. ATTACH A COPY OF THE PROPOSED/APPROVED FINANCIAL ASSURANCE.

Reclamation F	lan

☐ CHECK HERE IF YOU ATTACHED A COPY OF THE PROPOSED FINANCIAL ASSURANCE
☐ CHECK HERE IF YOU ATTACHED A COPY OF THE APPROVED FINANCIAL ASSURANCE
NOTE: A RECLAMATION COST ESTIMATE WORKSHEET IS ATTACHED FOR YOUR ASSISTANCE IN DETERMINING THE APPROPRIATE FINANCIAL ASSURANCE AMOUNT (APPENDIX A).
DETAILED DESCRIPTION OF RECLAMATION ACTIVITIES [attach additional sheets, if needed] [Pursuant to Public Resources Code Section 2772]
DESCRIBE THE PROPOSED USE OF THE SITE ONCE MINING CEASES AND RECLAMATION IS COMPLETED:
Two – single family residences and wildlife habitat.
ATTACH EVIDENCE THAT ALL OWNERS OF A POSSESSORY INTEREST IN THE LAND TO BE MINED HAVE BEEN NOTIFIED OF THE PROPOSED END USE (eg. copies of notices sent to land owner and mineral rights owner).
☑ CHECK BOX IF EVIDENCE IS ATTACHED
PROVIDE A TIME SCHEDULE FOR THE RECLAMATION OF EACH AREA DISTURBED BY MINING. IF APPLICABLE, INDICATE RECLAMATION PHASES ON YOUR SITE MAP.
Reclamation will be performed concurrently with mining operations.
DISCUSS HOW THE IMPLEMENTATION OF THIS RECLAMATION PLAN WILL AFFECT FUTURE MINING IN THE AREA [eg. reclamation will not preclude future mining at this site since reclamation calls for open space].
Reclamation will not preclude future mining at this site since reclamation calls for open space.
DESCRIBE HOW THE PROPOSED RECLAMATION OF THE MINE SITE WILL AFFECT PUBLIC HEALTH AND SAFETY, GIVING CONSIDERATION TO THE DEGREE AND TYPE OF EXISTING AND PROBABLE FUTURE PUBLIC EXPOSURE TO THE SITE.
The site is private property, therefore there will be no public affects of health and safety.
[DETAILED DESCRIPTION OF RECLAMATION ACTIVITIES con't]
BRIEFLY DISCUSS HOW CONTAMINANTS WILL BE CONTROLLED AND MINE WASTE WILL BE DISPOSED [eg. fuel storage]. NOTE: IF CYANIDE IS USED FOR ON-SITE PROCESSING, PRC SECTION 21151.7 REQUIRES THE PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

Diesel fuel, engine oil – volume will not exceed 55 gallons of diesel and 30 gallons of oil on site at any time. Environmentally hazardous materials will be stored in approved containers in the shop building (see map). Chemicals will not be used in the mining operation.
ATTACH A TOPOGRAPHIC MAP SHOWING THE CONFIGURATION OF THE SITE ONCE RECLAIMED.
☑ CHECK BOX IF MAP IS ATTACHED
LIST AND ATTACH COPIES OF ANY ADDITIONAL INFORMATION REQUIRED BY THE LEAD AGENCY AS INDICATED IN THE SMARA ORDINANCE [eg. reclamation of the mine site must comply with the provisions of the County's Oak Ordinance].
TO CHECK BOY IF ALL ADOVE LISTED DOCUMENTS ARE ATTACHED
☐ CHECK BOX IF ALL ABOVE LISTED DOCUMENTS ARE ATTACHED.
RECLAMATION STANDARDS
PURSUANT TO SMARA SECTION 2773, MY RECLAMATION ACTIVITIES WILL COMPLY WITH THE FOLLOWING STANDARDS PROVIDED IN THE CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 14, ARTICLE 9, SECTIONS 3700-3710.
CHECK APPLICABLE BOX
TOPSOIL SALVAGE, MAINTENANCE, AND REDISTRIBUTION - IF THE END USE CALLS FOR REVEGETATION OR CULTIVATION OF DISTURBED LANDS, I AGREE TO CONDUCT TOPSOIL SALVAGE, MAINTENANCE, AND REDISTRIBUTION ACTIVITIES IN CONFORMANCE WITH CCR SECTION 3711.
Explain the reclamation procedures you will use to meet the standard cited above:
Due to the previous extensive hydraulic mining activity, thin poorly developed soils are sparse on the site. Topsoil will be stockpiled for redistribution and revegetation over the mined areas.

[RE	CLAMATION STANDARDS con't]
CHE	CK APPLICABLE BOX
Ø	REVEGETATION - REVEGETATION WILL BE A PART OF MY APPROVED RECLAMATION PLAN. I AGREE TO CONDUCT MY REVEGETATION ACTIVITIES IN CONFORMANCE WITH CCR SECTION 3705. UNLESS NON-NATIVE SPECIES SUCH AS FORAGE GRASSES OR ORNAMENTALS WILL BE USED, SPECIFY AT LEAST FOUR NATIVE SPECIES THAT OCCUR ON SITE OR IN THE VICINITY OF THE PROJECT AND WILL BE USED FOR REVEGETATION.
	CHECK BOX IF THE END USE PRECLUDES REVEGETATION OR THE CULTIVATION OF DISTURBED LANDS.
	CHECK BOX IF REVEGETATION IS NOT CONSISTENT WITH THE APPROVED END USE.
PRO	POSED REVEGETATION PLAN:
Nat area	tive species of brush, tree saplings and grass will be planted to conform with the surrounding a. Plantings will cover tailing decks and pit floor at a density appropriate to the surrounding area.
	PPOSED REVEGETATION MIX: e attached list "Appendix C".

Appendix C

List of Vascular Plants Identified April 14, 2008, Golden Girl Mine Project BSA, Nevada County, CA

UPLAND AREAS Scientific Name

Arbutus menziesii

Arctostaphylos viscida

Calocedrus decurrens

Ceanthus cuneatus var. cuneatus

Chamaebatia foliolosa

Cornus nuttallii

Cytisus scoparius

Iris sp.

Lotus micranthus

Lotus purshianus

Lupinus nanus var. latifolius

Pinus ponderosa

Potentilla sp.

Pseudotsuga menziesii var. menziesii

Quercus berberidifolia

Quercus chrysolepis var. chrysolepis

Quercus kelloggii

Symphoricarpos albus var. laevigatus

Trifolium sp.

Common Name

Pacific madrone

White leaf manzanita

Incense cedar

Buck brush

Mountain misery

Mountain dogwood

Scotch broom

Iris

Small flowered lotus

Spanish lotus

Sky lupine

Ponderosa pine

Cinquefoil

Douglas fir

Scrub oak

Canyon live oak

Black oak

Common snowberry

Clover

[REC	LAMATION STANDARD	S con't]		
-	VEGETATION FOR TH	E APPROVED EN DENSITY, AND N CAL AREAS OF N	ID USE AND BY CON NUMBER OF SPECIES NATURALLY OCCURI	E EFFECTIVENESS OF THE IPARING QUANTIFIED S OF THE RECLAIMED RING VEGETATION OR
	BASELINE		PERFORMANC	E STANDARD
DENSIT	Y (NOTE 1)			
COVER	(NOTE 2)			
SPECIE	ESS (NOTE 3)			
NOTE 2 specifie	: NO. OF INDIVIDUAL PERENN : VERTICAL PROJECTION OF F d area, what percentage of that are 3: NO. OF PERENNIAL SPECIES	PERENNIAL PLANTS ON ea would be shaded by the	TO GROUND EXPRESSED A	AS % [eg. if the sun was directly over a
CUE	NA ADDI ICADI E DOV			
CHEC	CK APPLICABLE BOX			
Ø	IF THE MINING OPERATION WILL NOT BE AGRICULTURE		ED ON PRIME AGRICULTUR	AL LANDS, AND THE SITE'S END USE
	IF THE MINING OPERATION WILL BE CONDUCTED ON PRIME AGRICULTURAL LANDS, BUT THE SITE'S END USE WILL NOT BE AGRICULTURE, CHECK THIS BOX.			
	PRIME AGRICULTURAL LAND RECLAMATION - THE MINING OPERATION WILL BE CONDUCTED ON PRIME AGRICULTURAL LANDS, AND THE SITE'S END USE WILL BE AGRICULTURAL. THUS, I AGREE TO RECLAIM PRIME AGRICULTURAL LANDS IN CONFORMANCE WITH CCR SECTION 3707. (Explain the reclamation procedures you will use t meet the standard cited above)			
-	RECLAMATION SUCCESS W	ILL BE JUDGED ON TH	E FOLLOWING PERFORMAN	ICE STANDARD
	: 6	BASELINE	PERF	FORMANCE STANDARD
	PRODUCTIVITY			

Reclamation Plan

Page 7

[RECL	AMATION STANDARDS con't]		
CHECK	APPLICABLE BOX		
	OTHER AGRICULTURAL LAND RECLAMATION - THE MINING OPERATION WILL BE CONDUCTED ON NON-PRIME AGRICULTURAL LANDS WHERE THE SITE'S END USE WILL BE AGRICULTURE. THUS, I AGREE TO RECLAIM NON-PRIME AGRICULTURAL LANDS IN CONFORMANCE WITH CCR SECTION 3708. (Explain the reclamation procedures you will use to meet the standard cited above)		
_	RECLAMATION SUCCESS WILL BE JUDGED ON THE FOLLOWING PERFORMANCE STANDARD		
	BASELINE PERFORMANCE STANDARD		
	PRODUCTIVITY		
	NOTE: PERFORMANCE STANDARD SHOULD BE BASED ON PRODUCTIVITY [eg. bushels per acre, tons per acre].		
Ø	IF THE MINING OPERATION WILL BE CONDUCTED ON NON-PRIME AGRICULTURAL LANDS, BUT THE SITE'S END USE WILL NOT BE AGRICULTURE, CHECK THIS BOX.		
	WILDLIFE PROTECTION - I AGREE THAT ALL WILDLIFE AND WILDLIFE HABITAT WILL BE PROTECTED IN ACCORDANCE WITH CCR SECTION 3703 [CHECK BOX]. Provide a description of how the above protection will be accomplished:		
	Slopes will be groomed at no greater than 2:1, and planted with native species of plants at an appropriate density to enhance wildlife habitat.		
CHECK	APPLICABLE BOX		
CHECK	APPLICABLE BOX		
Ø	BACKFILLING, REGRADING, SLOPE STABILITY, AND RECONTOURING - I AGREE THAT ALL BACKFILLING, REGRADING, SLOPE STABILITY, AND RECONTOURING WILL CONFORM WITH CCR SECTION 3704. Explain the reclamation procedures you will use to meet the standard cited above:		
	Slopes will be groomed at no greater than 2:1 and recontoured to conform with the surrounding area.		
Ø	CHECK THIS BOX IF FINAL RECLAIMED FILL SLOPES, INCLUDING PERMANENT PILES OR DUMPS OF MINE WASTE ROCK AND OVERBURDEN, WILL NOT EXCEED 2:1 (HORIZONTAL:VERTICAL).		
EXPLAN	NATION:		

[RECLAMATION STANDARDS con't]
CHECK THIS BOX IF FINAL RECLAIMED FILL SLOPES, INCLUDING PERMANENT PILES OR DUMPS OF MINE WASTE ROCK AND OVERBURDEN, WILL BE: [INDICATED SLOPE RATIO] WHICH IS STEEPER THAN 2:1 (HORIZONTAL:VERTICAL). ATTACH A SITE-SPECIFIC GEOLOGIC AND ENGINEERING ANALYSIS THAT DEMONSTRATES THAT THE PROPOSED FINAL SLOPE WILL HAVE A MINIMUM SLOPE-STABILITY FACTOR OF SAFETY THAT IS SUITABLE FOR THE PROPOSED END USE, AND THAT THE PROPOSED FINAL SLOPES CAN BE SUCCESSFULLY REVEGETATED.
EXPLANATION:
PLEASE PROVIDE A GEOLOGIC CROSS SECTION OF CUT AND FILL SLOPES AT LOCATIONS OF MAXIMUM SLOPE HEIGHT. PLEASE IDENTIFY CROSS SECTION LOCATIONS ON THE SITE MAP.
DRAINAGE, DIVERSION STRUCTURES, WATERWAYS, AND EROSION CONTROL - I AGREE THAT ALL DRAINAGE, DIVERSION STRUCTURES, WATERWAYS, AND EROSION CONTROL FACILITIES WILL CONFORM TO CCR SECTION 3706 [CHECK BOX]. Explain the reclamation procedures you will use to meet the standard cited above:
Surface runoff and drainage from surface mining activities shall be controlled by berms, ditches and revegetation. Erosion control methods are designed to handle runoff from not less than the 20 year/1 hour intensity storm event. Surrounding land and water resources will not be affected by runoff or erosion related to the mining operation because all runoff is contained on the site.
BUILDING, STRUCTURE, AND EQUIPMENT REMOVAL - I AGREE TO RECLAIM ANY BUILDINGS, STRUCTURES, AND EQUIPMENT AREAS IN CONFORMANCE WITH CCR SECTION 3709 [CHECK BOX]. Explain the reclamation procedures you will use to meet the standard cited above:
There will be no permanent structures on the site, all mining equipment will be parked or removed from the site after mining operations have been completed. Equipment areas will be reclaimed to conform with the surrounding area.
IDENTIFY ON THE SITE MAP THE LOCATION(S) WHERE ALL EQUIPMENT, SUPPLIES, AND OTHER MATERIALS WILL BE STORED; IDENTIFY WHICH BUILDINGS, STRUCTURES AND EQUIPMENT WILL BE: (1) DISMANTLED AND REMOVED OFF SITE; AND/OR (2) REMAIN ON SITE AS CONSISTENT WITH THE END USED.
CLOSURE OF SURFACE OPENINGS - I AGREE TO CLOSE ALL SURFACE OPENINGS IN ACCORDANCE WITH CCR SECTION 3712 [CHECK BOX]. Explain the reclamation procedures you will use to meet the standard cited above:
All new excavations will be refilled with mine waste, sloped at no greater than 2:1, covered with topsoil, and revegetated.
Coordinated efforts will be made with Nevada County, state and ederal authorities to safely close all surface openings (sluice tunnels) on site.

_ IDENTIFY ALL SURFACE OPENINGS ON SITE MAP.				
[RECLAMATION STANDARDS con't]				
CHECK APPLICABLE BOX				
STREAM PROTECTION, INCLUDING SURFACE AND GROUNDWATER - I AGREE STREAMS, INCLUDING SURFACE AND GROUNDWATER WILL BE PROTECTED IN ACCORDANCE WITH CCR SECTION 3710. Explain the reclamation procedures you will use to meet the standard cited above:				
There are no perennial streams on the property. All seasonal drainages were modified by previous hydraulic mining activities. For this operation, all runoff will be contained on site in holding ponds. Erosion will be controlled by standard erosion control methods including hay bales, straw wattles, berms, ditches, silt fencing, etc.				
CHECK THIS BOX IF THE MINING OPERATION IS CONDUCTED IN A STREAM OR OTHER WATERWAY AND ATTACH CROSS SECTIONS, OR AERIAL PHOTOGRAPHS, IDENTIFYING BASELINE STREAMBED ELEVATIONS.				
CHANGES IN CHANNEL ELEVATIONS AND BANK EROSION SHALL BE EVALUATED ANNUALLY. EXTRACTION QUANTITIES AND ANNUAL CROSS SECTIONS AND/OR AERIAL PHOTOGRAPHS SHOULD BE SUBMITTED WITH THE ANNUAL REPORT REQUIRED BY PRC SECTION 2207.				
CHECK THIS BOX IF THE MINING OPERATION IS NOT CONDUCTED IN A STREAM OR OTHER WATERWAY.				

MONITORING

Pursuant to CCR Section 2773(a), the success of reclamation will be monitored for three years, or until performance standards are met, provided that, during the last two years, there has been no human intervention, including, for example, irrigation, fertilization, or weeding. Remedial measures will

	Reclamation Plan
Pogo 10	

be implemented as necessary to achieve the performance standards.

LEAD AGENCY CERTIFICATION

LEAD AGENCY C	EKTIFICATION		
of Articles 1 and 9 8 of Division 2 of T	hereby certify that this reclams (commencing with Sections 35 itle 14 of the California Code of d Reclamation Act, Sections 27	00 et seq. and 3700 et sed Regulations, and with the	q., respectively) of Chapter
Signed this	day of	, 19	
Planning Director			
STATEMENT OF	RESPONSIBILITIES		
described and sub 9 (commencing wi Title 14 of the Cali with Section 2710 conditions of appre		ce with the applicable req '00 et seq., respectively) of Surface Mining and Recla ons requested by the adm	uirements of Articles 1 and of Chapter 8 of Division 2 of amation Act commencing
Signed this/	day of _AugusT	, 19 <u>08</u>	
Mine Operator or of the South			
LEAD AGENCY	REPRESENTATIVE (S)	DATE	
(1)			
(2)			
	CHECKLIST C	F ATTACHMENTS	
☐ MAP THAT I	DENTIFIES HOW TO ACCE	SS THE MINE SITE FR	OM THE HIGHWAY
☐ TOPOGRAP	HIC MAP OF LANDS THAT	WILL BE AFFECTED B	Y MINING OPERATION
	P	Reclamation Plan	1

COPY OF THE PROPOSED FINANCIAL ASSURANCE
COPY OF THE APPROVED FINANCIAL ASSURANCE
EVIDENCE ALL OWNERS OF A POSSESSORY INTEREST IN THE LAND TO BE MINED HAVE BEEN NOTIFIED OF THE END LAND USE
TOPOGRAPHIC MAP SHOWING THE CONFIGURATION OF THE SITE ONCE RECLAIMED
OTHER INFORMATION REQUIRED BY LEAD AGENCY'S SMARA ORDINANCE
DESCRIBE:
GEOLOGIC REPORT
OTHER REPORTS OR DOCUMENTS
DESCRIBE: