



August 16, 2013

Ms. Sherrill Schoepe
Shadow Run Ranch, LLC
Post Office Box 1249
Pauma Valley, California 92061

Subject: Addendum No. 1- Mineral Resources Investigation
Shadow Run Ranch, Pauma Valley, California
TM 3100 5223; MUP 3300 00-030: ER 3910 00-02-035
Prepared for the County of San Diego
URS Project No. 27661027.10000

Dear Ms. Schoepe:

Our previous Mineral Resources Investigation report (revised) dated February 15, 2013 contained some outdated land information. We understand the current project acreage includes:

Total Property:	248.26 AC
Proposed Development:	105 AC
Biological Open Space:	91.31 AC
Agricultural Open Space:	39.12 AC
Recreational Area:	7.96 AC

As discussed in our report, the loss of Quaternary alluvial fan deposits from the site area would be considered significant. The above project acreage would not change this conclusion.

Also, we were requested to address the following guideline:

Guideline 2: The project would result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

The site is not a delineated locally-important mineral resource recovery site.

URS CORPORATION

David L. Schug, C.E.G. 1212
Principal Geologist

T E C H N I C A L R E P O R T

MINERAL RESOURCES INVESTIGATION SHADOW RUN RANCH

Prepared for

Shadow Run Ranch, LLC
Post Office Box 1249
Pauma Valley, California 92061

URS Project No. 27661027.10000

May 29, 2012
Revised February 15, 2013

URS

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Dear Ms. Schoepe:

This Mineral Resources Investigation report has been prepared for the proposed Shadow Run Ranch (SRR) residential project in north San Diego County. Scoping information concerning Mineral Resources was included in the County of San Diego's project issue review letter dated February 6, 2012.

The proposed SRR project is located in a Mineral Resource Zone (deemed MRZ-2 by the State of California). The purpose of this report is to evaluate mineral resources at and near the site of the proposed development to determine their significance, if precluded from future extraction. Based on our investigation, there would be a loss of Quaternary age alluvial fan deposits from the site area. The loss of these materials would be considered significant according to the County's "Guidelines for Determining Significance for Mineral Resources", as described in this report.

If you have questions concerning this report, please give us a call.

Sincerely,

URS CORPORATION

A handwritten signature in black ink, appearing to read "D. Schug", is positioned below the URS CORPORATION text.

David L. Schug, C.E.G. 1212
Principal Geologist

DLS:kl

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Attachment

Attachment A	County of San Diego- Guidelines for Determining Significance (Mineral Resources)
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SECTION 1 INTRODUCTION

This Mineral Resources Investigation has been prepared for the proposed Shadow Run Ranch (SRR) residential project in north San Diego County. Figure 1 shows the regional location of the site.. This report has been prepared per the County of San Diego’s “Guidelines for Determining Significance and Report Content Requirements, Mineral Resources”, first Revision, July 30, 2008.

1.1 PURPOSE OF REPORT

The proposed SRR project is located in land deemed MRZ-2¹ by the State of California. The purpose of this report is to evaluate mineral resources at and near the site of the proposed development to determine their significance, if precluded from future extraction.

1.2 PROJECT LOCATION AND DESCRIPTION

The project area is in the Pauma Valley area of north San Diego County. The proposed development is located along the north side of Highway 76, about 10.5 miles east of Interstate 15. The project proposes subdivision of agricultural land into residential and open space lots, as outlined below:

- Total Property: 245.4 acres
- Proposed Development: 105 acres
- Biological Open Space: 95.2 acres
- Agricultural Open Space: 37.2 acres
- Recreational Area: 8.0 acres

The proposed development will include 44 residential lots with several new roads, with open-space areas along Frey Creek and the hillside areas to the east of the Elsinore fault. The area proposed for agricultural open space (east of the fault) would be precluded from residential development due to the fault rupture hazard (URS, 2001). The site layout is shown on Figure 2.

¹ MRZ-2 areas are “Areas where adequate information indicates that significant mineral resources are present or where it is judged that a high likelihood for their presence exists”, CDMG Special Report 153 (1982)

SECTION 2 EXISTING CONDITIONS

2.1 TOPOGRAPHIC SETTING

Site topography is shown on Figure 2. The project area is within the Pauma Valley above the San Luis Rey River. The property encompasses broad alluvial fans emanating from the Agua Tibia Mountains to the east.

The land within the MRZ-2 portion of the project area consists of a broad, gently sloping terrace-like surface that slopes down to the south towards the San Luis Rey River. Ground surface elevations within this area range between about 1,130 feet and 730 feet Mean Sea Level (MSL). The upper part of the site (not within an MRZ-2) is a relatively steep mountain front.

The Elsinore fault extends across the upper portion of the MRZ-2 area onsite (Figure 2). Past movement along the fault has created the relatively steep hillside area, to the east and upslope of the proposed residential area. The ground surface west of the fault slopes down to the west at about a 10 percent gradient. The land surface flattens to a gradient of about 6 to 7 percent in the approximate mid portion of the proposed residential area.

2.2 LAND USE

The property has supported extensive fruit groves for many years. The groves are interconnected by paved and unpaved access roads. Development of the fruit groves involved some minor land leveling and grading. An existing water storage reservoir is located above the proposed development area.

The natural drainage course of Frey Creek and several other shallow, unnamed drainages extend through the site. One of the more extensive unnamed drainages extends approximately through the lower middle portion of the site.

Highway 76 extends along the west site boundary. The site entrance is along Highway 76, west of the Adams Drive intersection. Single family residences are located along Adams Drive, and near the intersection of Highway 76 and Adams Drive.

2.3 MINERAL RESOURCE POTENTIAL

The MRZ-2 designation encompasses alluvial fan deposits on the northern and eastern sides of Pauma Valley (Figure 3). According to the County of San Diego Guidelines, this area encompasses about 5,818 acres and would potentially be a source of construction materials including sand, gravel and crushed rock.

According to the USGS, several past private producers have mined Quaternary alluvium as a source of construction sand and gravel in the same MRZ-2 area. Most of these operations involve extracting recent alluvial deposits from the San Luis Rey River.

A former quarry in an alluvial fan deposit near Pala (in the NE¼ Sec. 26, T. 9 S., R. 2 W) covers an area of about ¼ square mile to a depth of at least 20 feet and consists of crudely stratified lenses of cobbles and

boulders. After being crushed, sized, and washed, the material was used as concrete aggregate (Bureau of Mines, 1982).

Another former quarry had operated by Vulcan Materials within alluvial fan deposits about 3 miles west of the SRR. The former 200-acre quarry has been closed for some time and is operated as an off-road vehicle park. Our brief reconnaissance of this former quarry indicates alluvial fan deposits had been removed from within broad pits to depths up to about 20 feet. There apparently has been no reclamation of the former pits.

2.4 GEOLOGY

The MRZ-2 within the project area includes Younger and Older Fan Deposits as mapped by Kennedy (2000). Alluvial fan deposits underlie the entire proposed development area (Figure 4).

Exploratory trenches were excavated onsite during our previous fault investigation (URS, 2001, 2009). Ten fault trenches were excavated mostly in the older (alluvial) fan deposits. The trenches were excavated with a heavy-duty backhoe, typically to refusal depths. A pneumatic breaker was used to help break up large boulders up to about 10 feet in diameter.

The alluvial fan deposits were described in the trenches as very coarse grained, largely unstratified and very poorly sorted. The deposits were primarily sandy containing a large percentage of gravels, cobbles and boulders. The boulders are mostly granitic, with diorite and dark gabbro. The alluvial fan deposits extend to depths at least 17 feet below ground surface, the maximum depth of the trenches. The granitic gravels, cobbles and boulders (“gravels”) within the depths of the trenches were weathered and decomposed to varying degrees. Topsoil and other soil overburden were relatively thin in the trenches. Figure 5 shows the wide size range of the variably weathered gravels and the sandy material matrix contained within the alluvial fan gravels, as exposed in the trenches.

The fan gravels were highly weathered and decomposed in trenches excavated at higher site elevations, located generally along and to the east of the Elsinore fault (URS, 2009). Beneath a thin layer of younger alluvium, highly weathered and decomposed boulders were estimated to comprise about 30 percent of the older alluvium.

The alluvial fan deposits were observed to be variably weathered within the depths of the trenches. The fan deposits also appear to be variably weathered to depths greater than the trenches. At depths greater than several tens of feet, the available well logs typically describe the boulders as “decomposed with iron coatings”, with zones of “DG” and clay layers. Existing water supply wells drilled along Frey Creek penetrated young alluvium and continued into the underlying older alluvial fan deposits, terminating in granitic bedrock.

SECTION 3 MINERAL RESOURCE IMPACT ANALYSIS

3.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

The guidelines listed in the County's Guidelines for Determining Significance for Mineral Resources are addressed in this section. A copy of the County's Guidelines is included as Attachment A.

3.2 METHODOLOGY

To evaluate whether or not the onsite deposits within the MRZ-2 would be considered significant for construction material, we first considered the anticipated material quality and extraction requirements. Land use compatibility was then analyzed. Finally, we assessed marketability and minimum dollar value for the extractable resource volume.

3.2.1 Material Quality and Extraction Requirements

Material Quality

The material waste percentage of the alluvial fan deposits in the Pauma Valley area had been estimated at about 20 percent (WCC, 1979). Waste materials would result primarily from the high fines content and variable composition and weathering of the gravels, cobble and boulders. The more highly weathered and decomposed materials (as observed in the trenches) would likely provide low quality coarse aggregate material. The bulk unit weight is estimated to be about 100 lbs/ft³ (1.3 tons/yd³).

Based on the trenches, the older alluvial fan deposits could be excavated to depths up to about 15 to 20 feet using heavy-duty grading equipment, such as a track-mounted track hoe (e.g., Komatsu 400PC with pneumatic rock breaker). Other earth moving equipment, such as a large dozer with ripper shanks and front end loader would be required to manage materials. An onsite grizzly and crusher would be required. The material would need to be crushed, sized, and washed, to be used as concrete aggregate.

Extraction Requirements

Considering land use, an onsite quarry would need to have appropriate setbacks from:

- Property lines,
- The Elsinore fault, and
- Existing residences.

Some acreage would also be required for onsite crushing, processing and operations facilities. The potentially mineable area would be within the gently sloping topography down slope (west) of the active Elsinore fault. The older fan deposits within the higher site areas (to the east of the fault) are likely too highly weathered and decomposed to be suitable for aggregate.

An approximate 110-acre quarry could be located on the site as shown on Figure 6. Alluvial fan deposits over this area would be excavated to an average depth of about 15 to 20 feet. This would avoid deep open

pit mining and potentially encountering groundwater. The quarry would have side slopes at about 1:1 (horizontal to vertical) with access ramps leading into the excavation area. Waste materials would need to be stored on site until they could be ultimately disposed of offsite. At least some of the disturbed area could be restored in the future.

Approximately 20 percent of the material would be non-commercial waste material. The total volume of the alluvial fan deposits within the 110-acre quarry (extracted to an average depth of 20 feet) would be approximately 2.8 million cubic yards (about 3.8 million tons).

3.2.2 Land Use Compatibility

Land use compatibility impacts are addressed below.

Onsite Impacts from Proposed Onsite Land Use

The proposed SRR residential project would likely preclude sand and gravel mining on the same property. Our analysis of minimum dollar value (discussed below) indicates an onsite quarry would need to be at least about 35 to 40 acres to meet the minimum dollar value. The potentially mineable area is approximately 110 acres and would exceed the minimum dollar value per County Guidelines.

Offsite Impacts from Proposed Onsite Land Use

Existing residential properties are present along Adams Avenue within 1,300 feet of the potential onsite mineable area. This offsite area would not support a mining operation. Similarly, the 1,300-foot area along and beyond Highway 76 to the south is also “already lost”, as it would not be practical to mine a narrow strip along the highway. The nearest reach of the San Luis Rey River has a narrow floodplain and it would be difficult to avoid flooding if a mine were to be located in the riverbed.

A portion of the MRZ-2 to the north of Frey Creek, and within 1,300 feet of the proposed development could be mined for same older alluvial fan deposits that underlie SRR (Figure 7). We estimate this offsite “impacted” area would be about 60 acres. Assuming all of the 60 acres could be mined (average depth of 20 feet), the total volume of the alluvial fan deposits would be approximately 1.5 million cubic yards (about 2.1 million tons).

Onsite Impacts from Offsite Land Uses

The existing residential properties along Adams Avenue would require 1,300-foot wide noise buffer zones, which would constrain the potentially extractable acreage onsite to about 75 acres (Figure 8). The total volume of the alluvial fan deposits (mined to an average depth of 20 feet) would be approximately 1.9 million cubic yards (about 2.6 million tons).

3.2.3 Marketability

According to the San Diego County General Plan Update EIR, the total amount of permitted aggregate resources in western San Diego County is only about 17 percent of the estimated 50-year demand for the

County. With this projected deficit, the onsite materials at SRR may be marketable in the short term or in the next 50 years.

3.2.4 Minimum Dollar Value

Assuming a given deposit is marketable; the County significance criteria consider whether or not a deposit meets a minimum dollar value. We have taken the minimum value as \$15,000,000 (which is a 2005 amount per County Guidelines). This amount is considered consistent with the current depressed status of the sand and gravel industry in San Diego (Jim Bennett, County of San Diego, personal communication, February 2012).

The average cost of coarse aggregate in San Diego County was reported at about \$15/ton (EnviroMINE, 2007). However, the average cost of coarse aggregate sold at Rosemary's Mountain quarry is about \$12/ton (Gary Nolan, Granite Construction, personal communication, April 2012). Assuming an average cost of \$12/ton:

- The value of the 110-acre mineable area of the site would be about \$46 million dollars. This amount would exceed the County's minimum dollar value criteria (for 2005).
- The value of the 75-acre noise impacted offsite area would be about \$31 million dollars, which is above the minimum dollar value criteria (for 2005).

3.3 SIGNIFICANCE OF IMPACTS

Variably weathered alluvial fan deposits underlie the proposed development area within the MRZ-2. These deposits are only marginally suitable as sources of construction materials due to the high waste percentage, and the variable weathering of the granitic materials. Nevertheless, the loss of this MRZ-2 resource within the site area would be considered significant, pursuant to County Guidelines.

3.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

The proposed development area would need to be reduced to less than about 35 acres to be under the County's minimum value (\$15,000,000) so as to not be considered significant. We understand a reduced project of this scale would not go forward. In our opinion, no feasible mitigation can reasonably be proposed.

3.5 CONCLUSIONS

The loss of MRZ-2 mineral resources from the site would be considered significant.

SECTION 4 REFERENCES

- California Division of Mines and Geology, 1982, Mineral Land Classification, Aggregate Materials in the Western San Diego County Production Consumption Region, Special Report 153
- County of San Diego, 2008, Guidelines for Determining Significance and Report Content Requirements, Mineral Resources, first Revision, July 30.
- County of San Diego, 2010, San Diego County General Plan Update Draft EIR, Mineral Resources
- EnviroMINE, 2007, Southern California Construction Market Study, prepared for Granite Construction
- URS, 2001, Fault Hazard Investigation, Schoepe Tentative Map, Pauma Valley, California, prepared for Adolf Schoepe Enterprises
- URS, 2009, Update Fault Hazard Investigation, Schoepe Tentative Map, Pauma Valley, California, prepared for Adolf Schoepe Enterprises
- Woodward-Clyde Consultants, 1979, Mineral Land Survey, Sand and Gravel Resource Zones, Western San Diego County, California, prepared for San Diego County Rock Producers Association
- Kennedy, M.P., 2000, Geologic Map of the Pala 7.5' Quadrangle, San Diego County, California: A digital database published by the California Division of Mines and Geology in cooperation with the USGS.
- U.S. Bureau of Mines, 1982, Status of Mineral Resource Information for Thirty Mission Indian Reservations in Southern California, Administrative Report BIA-96
- USGS Mineral Resources, Online Spatial Data, Mineral Resource Data System (MRDS) MRdata.USGS.gov

SECTION FIVE List of Preparers and Persons and Organizations Contacted

SECTION 5 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

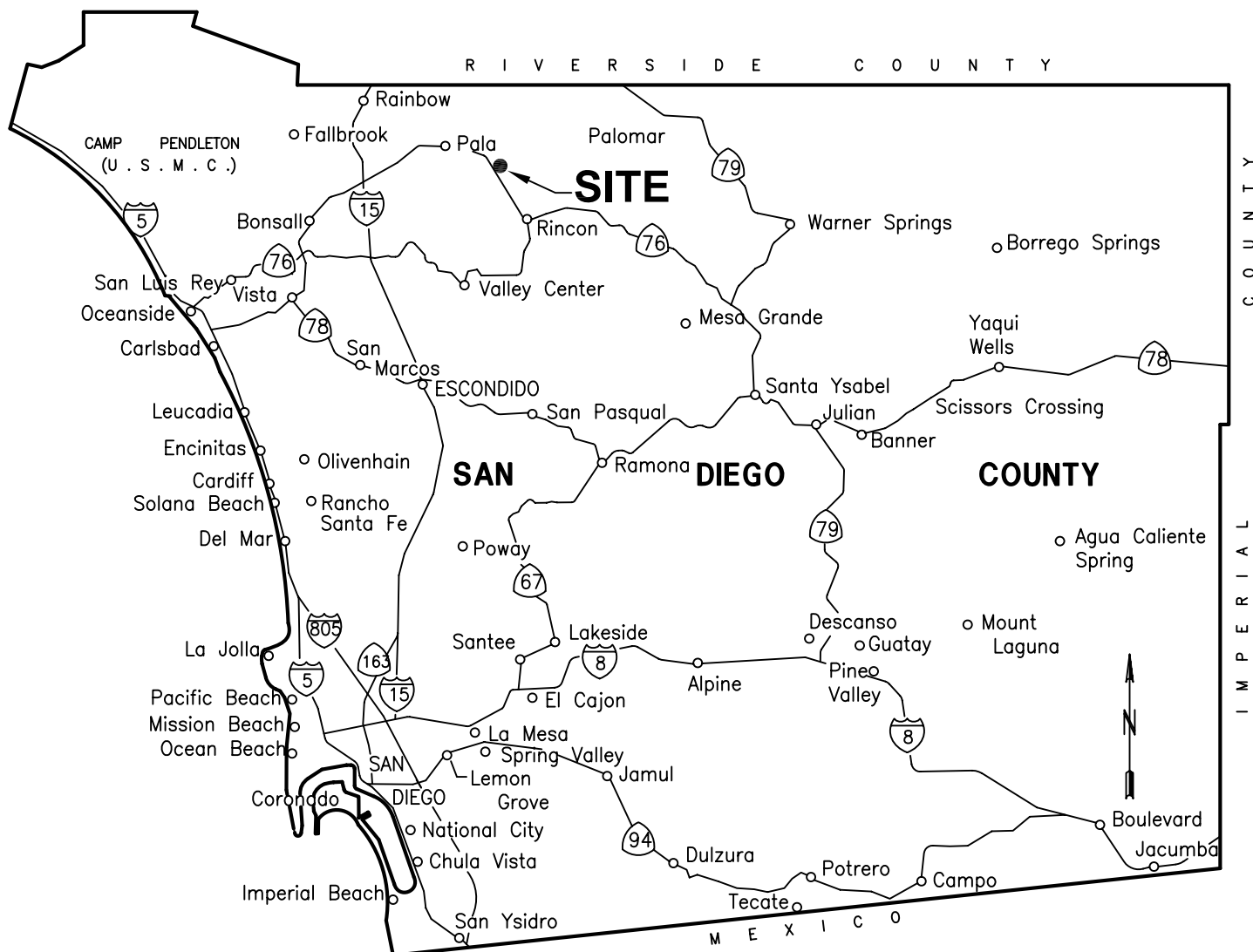
David L. Schug, C.E.G., URS Corporation, Preparer

Rob Stroop, P.E., G.E., URS Corporation, Peer Reviewer/Quality Assurance

Jim Bennett, Geologist, County of San Diego, personal communication, March 2 and December 13, 2012

Jerry Brown, JEB Sand and Gravel, Escondido, CA, personal communication, April 10, 2012

Gary Nolan, Manager, Rose Mary's Mountain Quarry, Granite Construction, Pala, CA, personal communication, April 16, 2012



URS

NOT TO SCALE

**VICINITY MAP
MINERAL RESOURCES INVESTIGATION
SHADOW RUN RANCH**

CHECKED BY: DLS

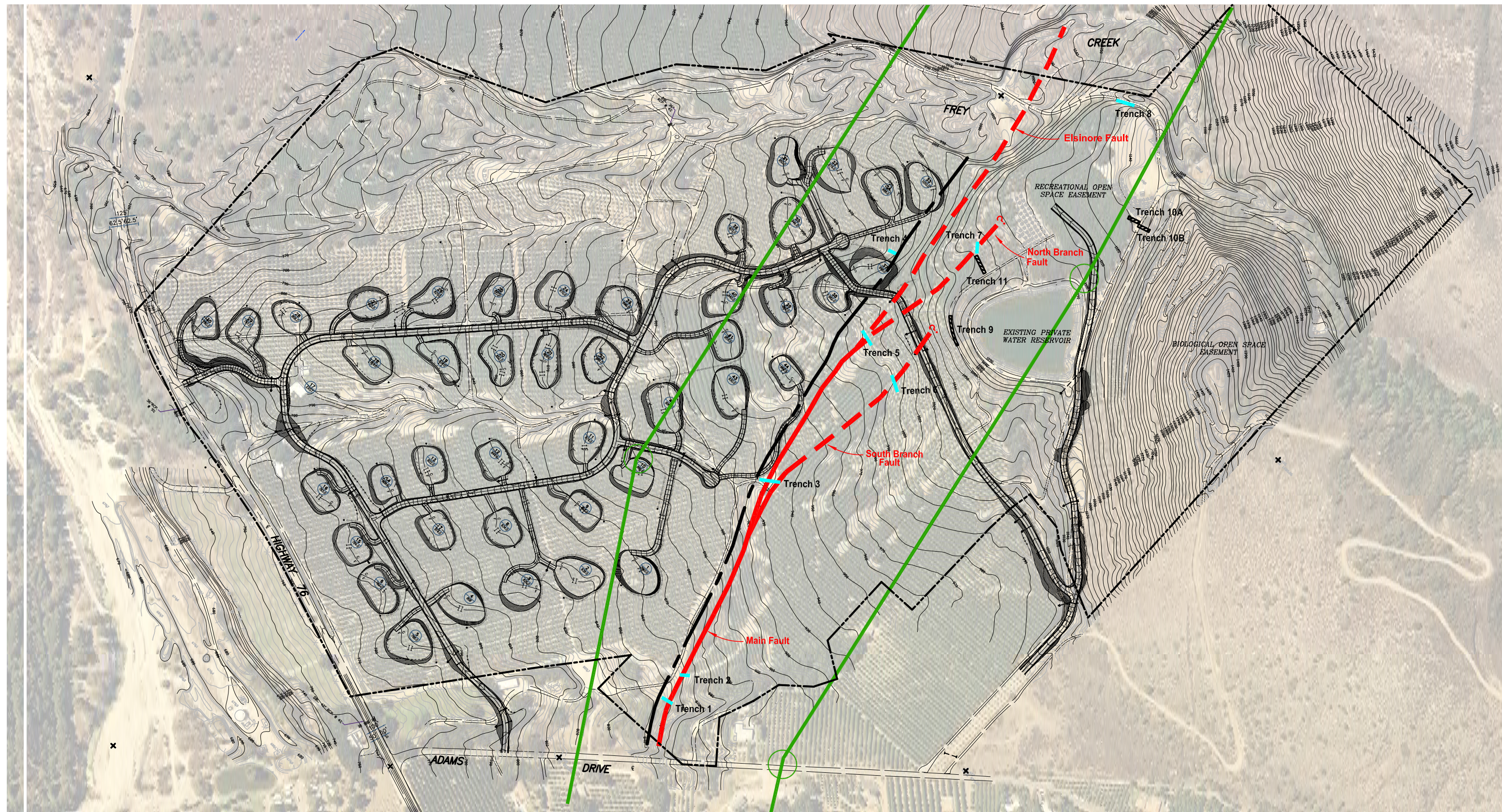
DATE: 04-18-12

FIG. NO:

PM: DLS

PROJ. NO: 27661027.10000

1



LEGEND:

- FAULT, DASHED WHERE APPROXIMATE
- FAULT SETBACK BOUNDARY (WEST OF MAIN FAULT)
- SUPPLEMENTAL TRENCH LOCATION (URS, 2009)

- PREVIOUS EXPLORATORY TRENCH (URS, 2001)
- EARTHQUAKE FAULT ZONE (APPROXIMATE)

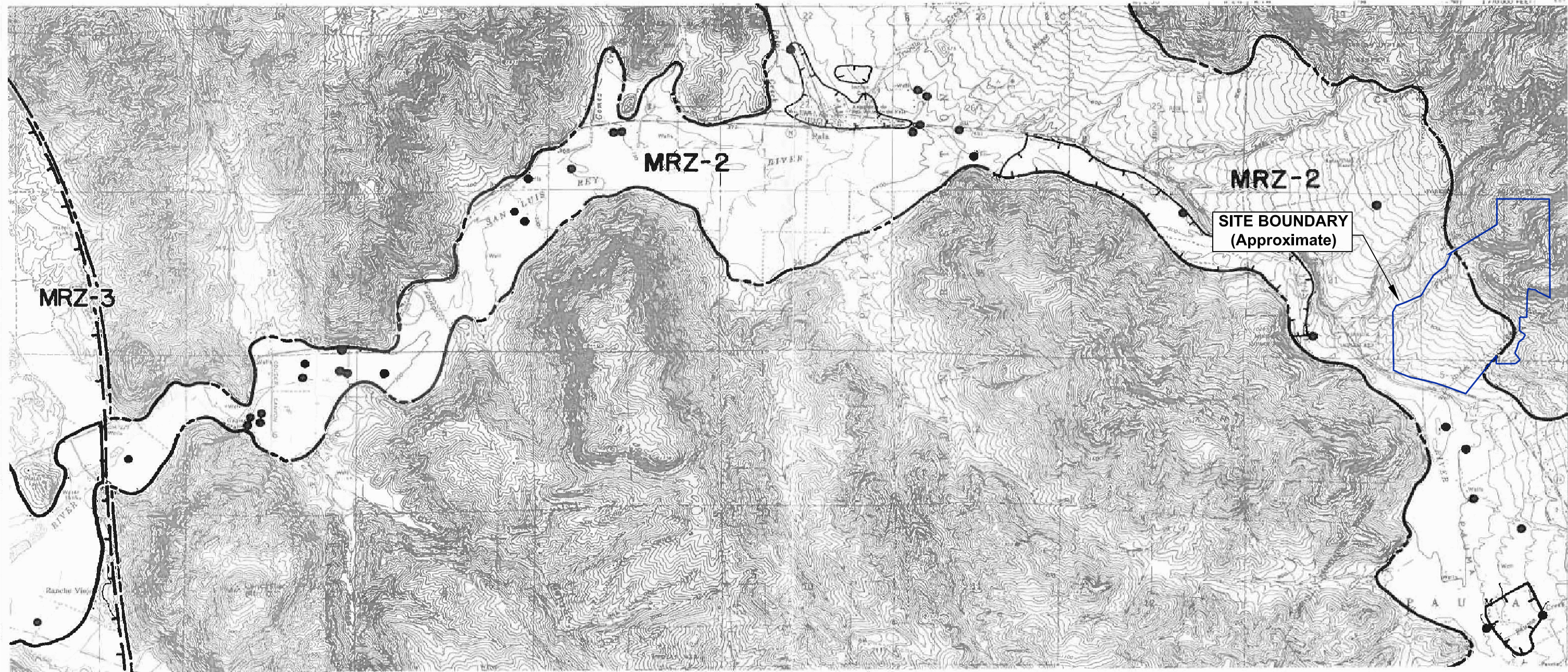


URS

200 0 200 400 Feet
SCALE: 1"= 400'

**SITE PLAN
MINERAL RESOURCES INVESTIGATION
SHADOW RUN RANCH**

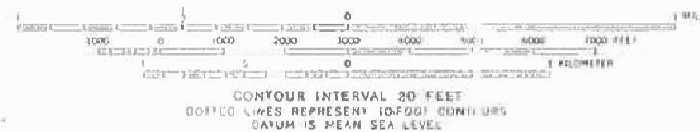
CHECKED BY: DLS	DATE: 04-19-12	FIG NO:
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TOPOGRAPHIC BASE MAP BY U.S. GEOLOGICAL SURVEY
Reduced from 1:24,000

EXPLANATION

- Drill hole
 - OUTER BOUNDARY OF AREAS SUBJECT TO URBANIZATION
Boundaries established from data supplied by the Office of Planning and Research with modifications developed from information supplied by local government and other sources. Features lie within area undergoing urbanization.
 - EXISTING URBAN BOUNDARIES
Boundaries established by the Office of Planning and Research and by data supplied by local government agencies and other sources to reflect present conditions. Features lie within urban area.
 - PRODUCTION-CONSUMPTION REGION BOUNDARY
(see text for discussion)
 - MINERAL RESOURCE ZONE BOUNDARIES
 - MRZ-1 Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
 - MRZ-2 Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
 - MRZ-3 Areas containing mineral deposits the significance of which cannot be evaluated from available data.
 - MRZ-4 Areas where available information is inadequate for assignment to any other MRZ zone.
- See text for additional explanation of MRZ Symbols.



MINERAL LAND CLASSIFICATION MAP AGGREGATE RESOURCES ONLY

PREPARED IN COMPLIANCE WITH THE SURFACE MINING
AND RECLAMATION ACT OF 1975, ARTICLE 4, SECTION 2761

James M. Rouse
STATE GEOLOGIST FEBRUARY 15, 1983

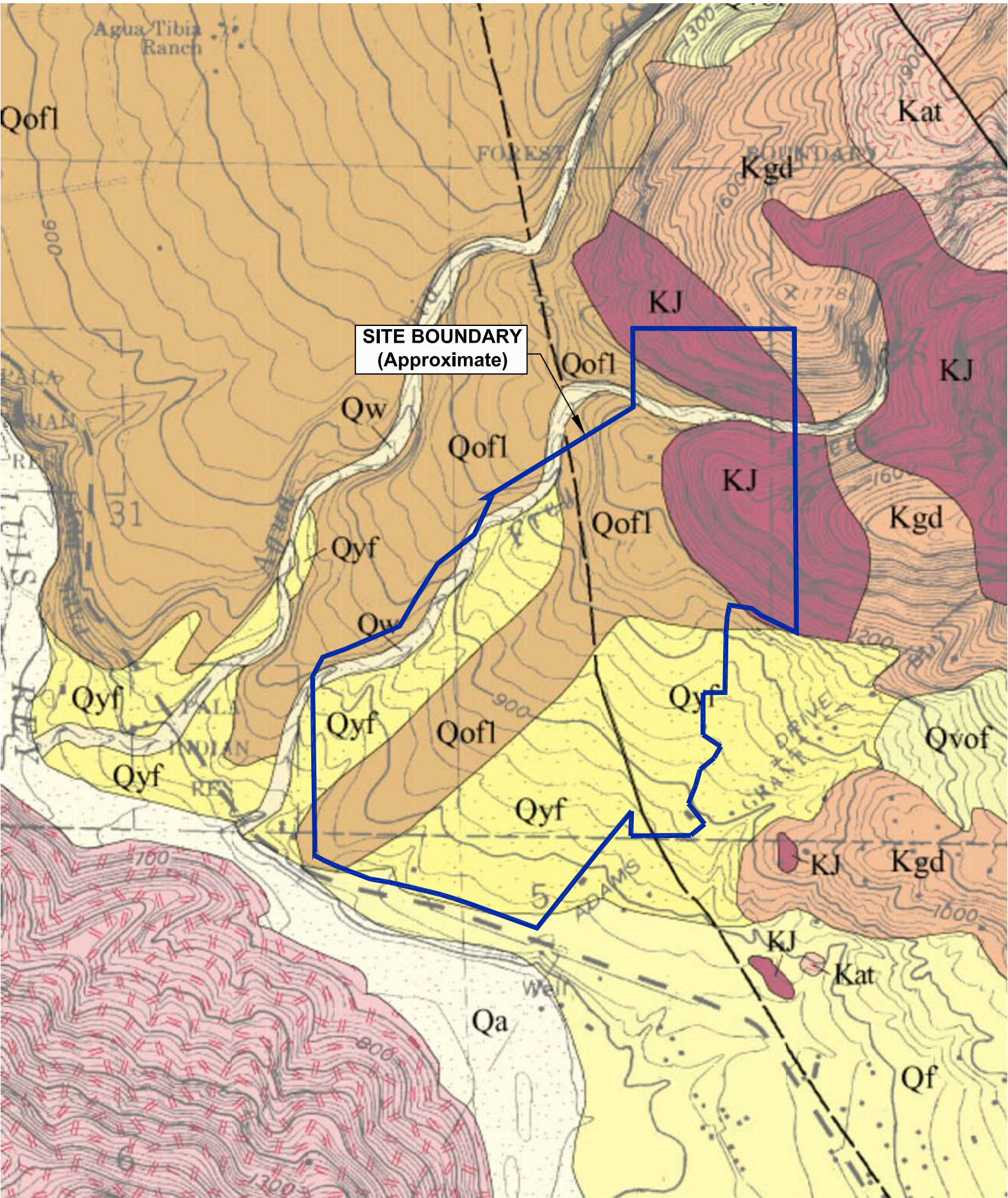
Source - California Division of Mines and Geology Special Report 153, 1983.



URS

MINERAL LAND CLASSIFICATION MAP MINERAL RESOURCES INVESTIGATION SHADOW RUN RANCH

CHECKED BY: DLS	DATE: 04-18-12	FIG. NO:
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DESCRIPTION OF MAP UNITS

MODERN SURFICIAL DEPOSITS - Sediment that has been recently transported and deposited in channels and washes, on surfaces of alluvial fans and alluvial plains, and on hillslopes and in artificial fills. Soil-profile development is non-existent. Includes:

- Qf Active alluvial fan deposits (late Holocene) - Unconsolidated to locally poorly consolidated sand, gravel, cobble and boulder deposits in active alluvial fans.
- Qa Active alluvial flood plain deposits (late Holocene) - Unconsolidated to locally poorly consolidated sand and gravel deposits in active alluvial flood plains.

YOUNG SURFICIAL DEPOSITS - Sedimentary units that are slightly consolidated to cemented and slightly to moderately dissected. Alluvial fan deposits typically have high coarse: fine clast ratios. Younger surficial units have upper surfaces that are capped by slight to moderately developed soil profiles. Includes:

- Qyf Young alluvial fan deposits (Holocene and late Pleistocene) - Mostly poorly consolidated and very poorly sorted sand, gravel, cobble and boulder deposits in young alluvial fans.

OLD SURFICIAL DEPOSITS - Sedimentary units that are moderately consolidated and slightly to moderately well dissected. Older surficial deposits have upper surfaces that are capped by moderately to well-developed soils. Includes:

- Qofl Older fan deposits (Pleistocene, younger than 500,000 years but older than Qof2 deposits) - Mostly poorly consolidated fan, debris flow and talus deposits. Clasts are distinctly deeply weathered and the matrix distinctly reddish brown in color.


BEDROCK UNITS

- Kat Gabbro of the Agua Tibia Mountains (Cretaceous) - Hornblende gabbro; medium to coarse grained, massive to foliate. This gabbro often contains minor biotite and quartz (quartz bearing gabbro).
- Kgd Granodiorite undivided (Cretaceous) - Mostly hornblende-biotite granodiorite; coarse to medium grained.
- KJ Metavolcanic and metasedimentary rocks undivided (Cretaceous and Jurassic) - Low grade (greenschist facies) rocks that are in part coeval with and in part older than the Cretaceous plutonic rocks they lie in contact with.


MAP SYMBOLS

- Contact between map units.
- Fault - dashed where inferred, dotted where concealed.

MAP SOURCE: Kennedy, 2000



GEOLOGIC MAP
MINERAL RESOURCES INVESTIGATION
SHADOW RUN RANCH



500 0 500 1000 Feet

SCALE: 1"= 1000'

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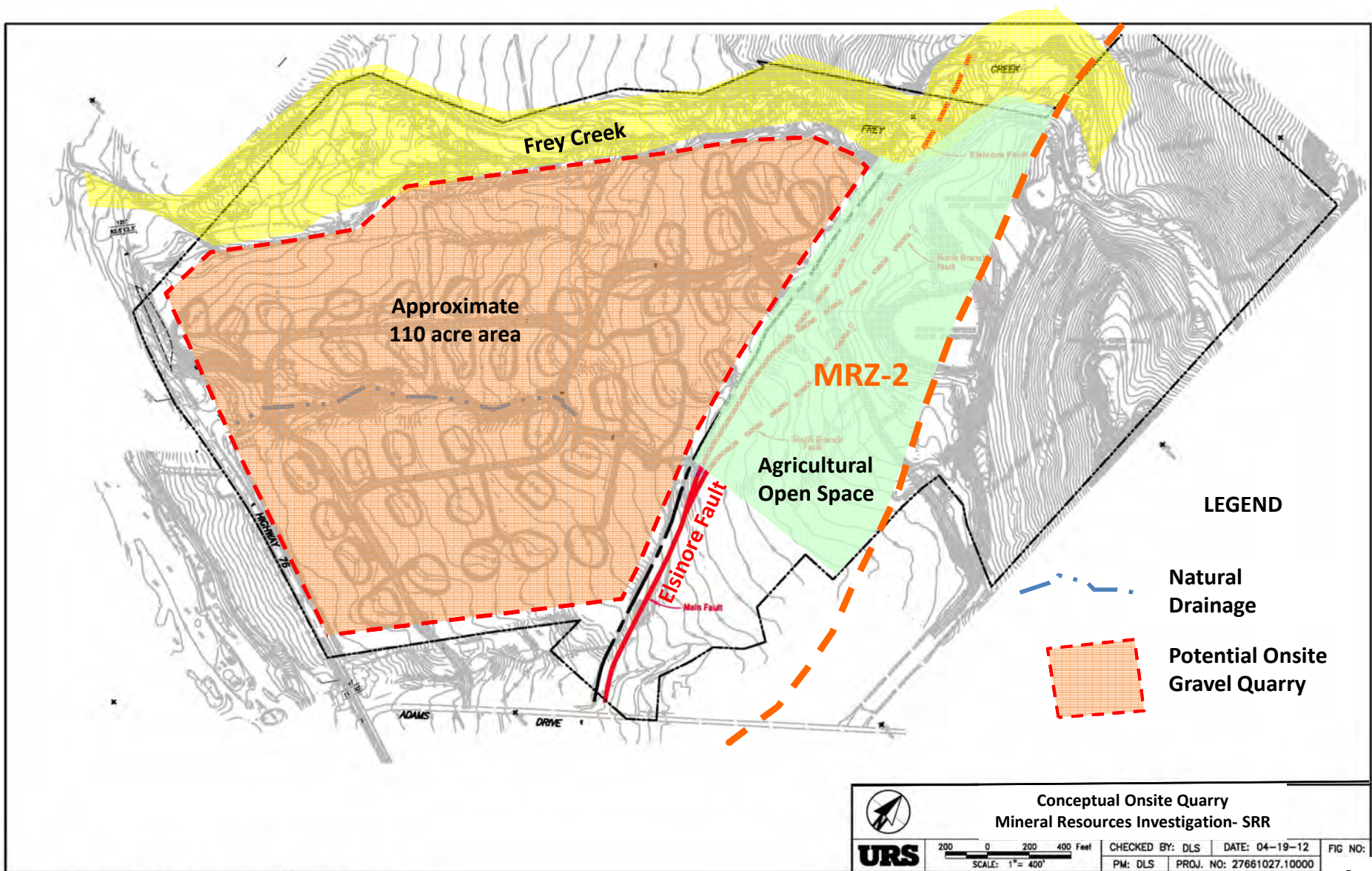
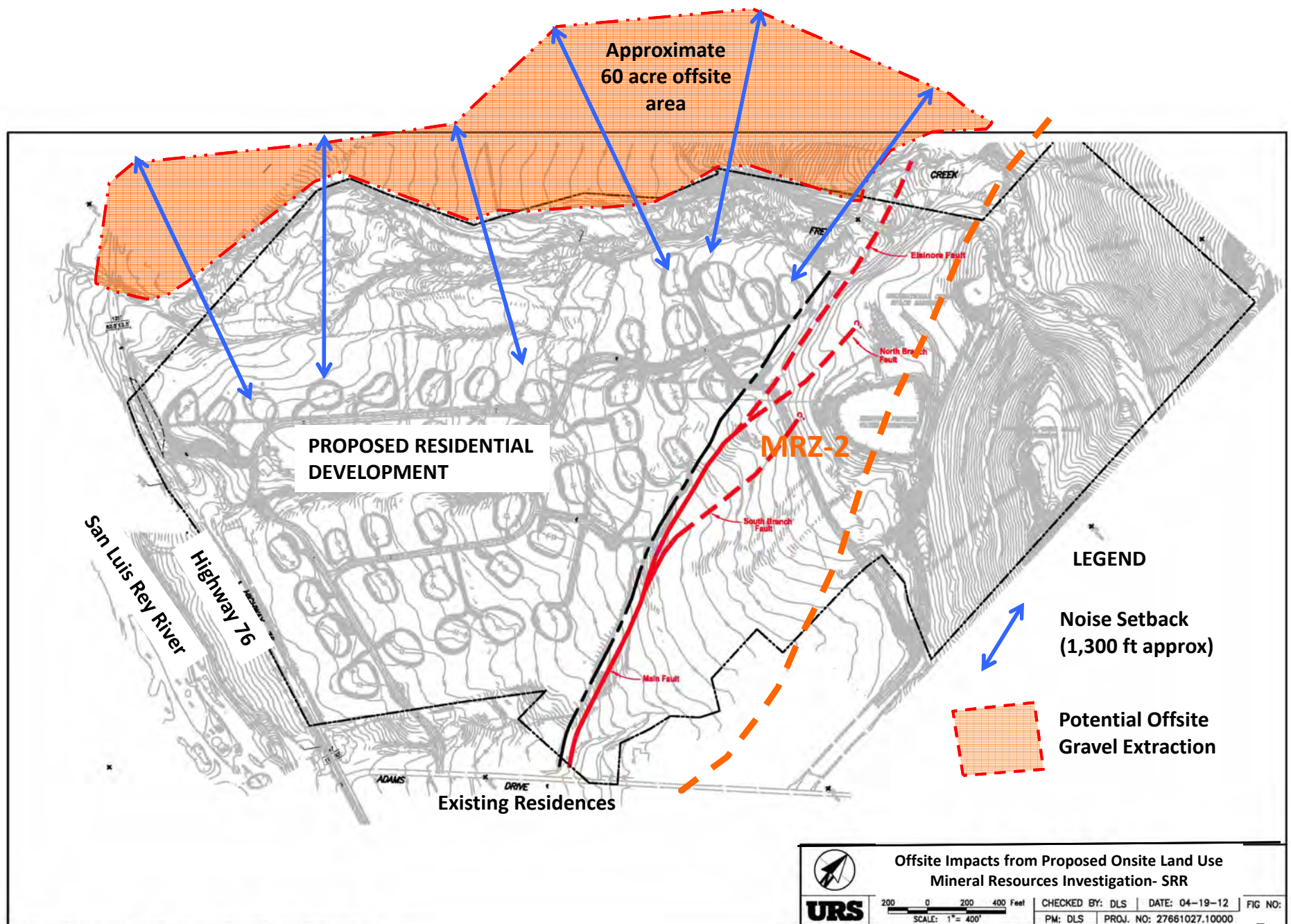
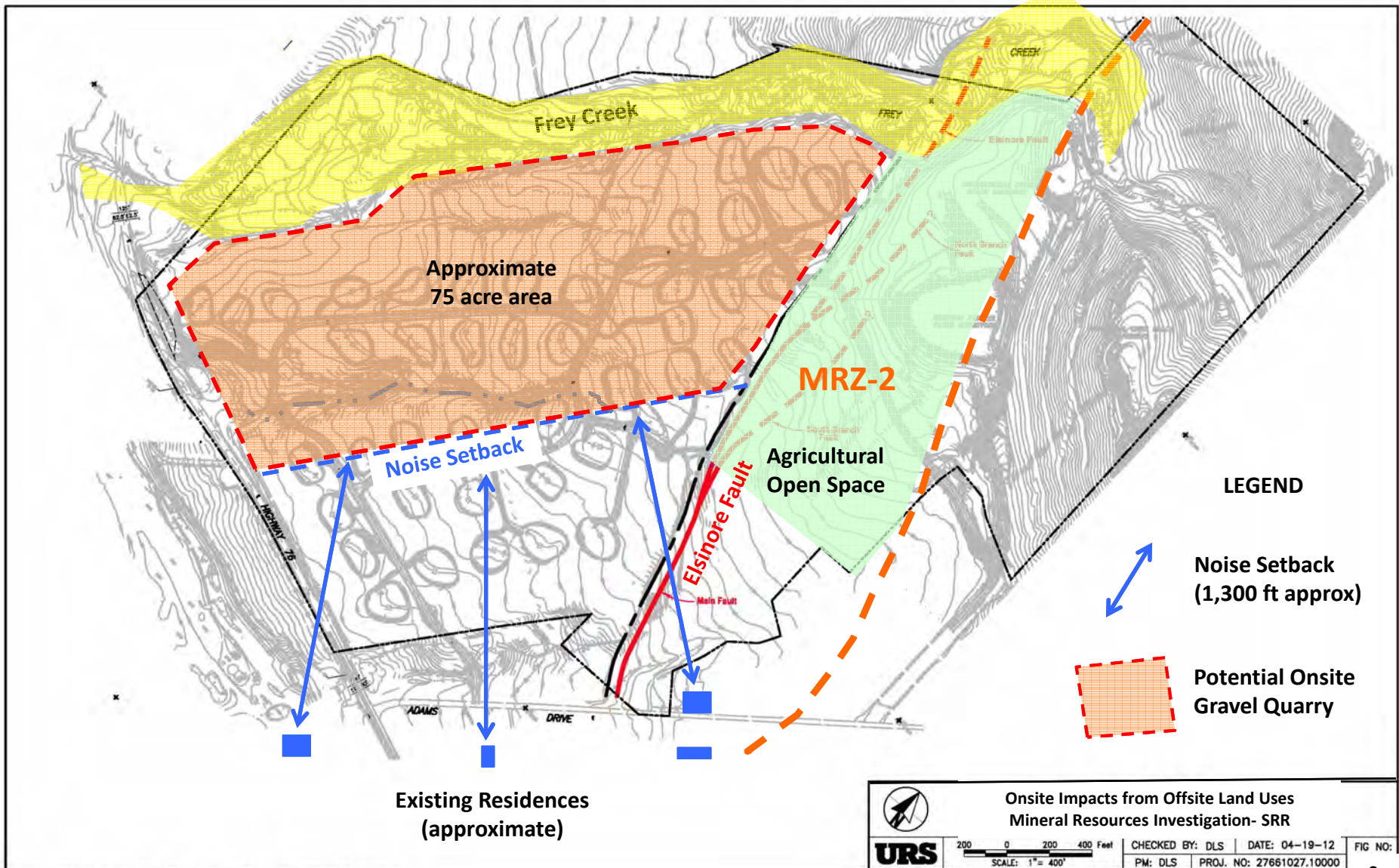
	<p>Date:2001</p> <p>Comments: Trench excavated within the alluvial fan deposits shows the poorly sorted gravels, cobble and boulders in a sandy matrix.</p>
	<p>Date: 2009</p> <p>Comments: Highly weathered and decomposed granitic boulders within older fan deposits, as exposed within Trench 9 (near reservoir)</p>

Figure 5- Trench Photos of Alluvial Fan Gravels







COUNTY OF SAN DIEGO

**GUIDELINES FOR DETERMINING SIGNIFICANCE
AND
REPORT FORMAT AND CONTENT REQUIREMENTS**

MINERAL RESOURCES



LAND USE AND ENVIRONMENT GROUP

**Department of Planning and Land Use
Department of Public Works**

**First Revision
July 30, 2008**

4.0 GUIDELINES FOR DETERMINING SIGNIFICANCE

This section provides guidance for evaluating adverse environmental effects a project may have on mineral resources. These Guidelines are based on the State CEQA Guidelines, Appendix G, Section X. The primary goal of these Guidelines is to establish measurable standards for determining when an impact will be considered significant pursuant to CEQA.

The following significance guidelines should guide the evaluation of whether a significant impact to mineral resources will occur as a result of project implementation. A project will generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it will generally not be considered to have a significant effect on mineral resources, absent specific evidence of such an effect.

1. The project is:

- *On or within the vicinity (generally up to 1,300 feet from the site) of an area classified as MRZ-2; or*
- *On land classified as MRZ-3; or*
- *Underlain by Quaternary alluvium; or*
- *On a known sand and gravel mine, quarry, or gemstone deposit;*

AND

The project will result in the permanent loss of availability of a known mineral resource that would be of value to the region and the residents of the state;

AND

The deposit is minable, processable, and marketable under the technologic and economic conditions that exist at present or which can be estimated to exist in the next 50 years and meets or exceeds one or more of the following minimum values (in 1998 equivalent dollars):

- | | |
|---|---------------------|
| • <i>Construction materials
(sand and gravel, crushed rock)</i> | <i>\$12,500,000</i> |
| • <i>Industrial and chemical mineral materials
(limestone, dolomite, and marble
[except where used as
construction aggregate]; specialty
sands, clays, phosphate, borates</i> | <i>\$2,500,000</i> |

**and gypsum, feldspar, talc,
building stone and dimension
stone)**

- **Metallic and rare minerals** **\$1,250,000**
**(precious metals [gold, silver,
platinum], iron and other ferro-
alloy metals, copper, lead, zinc,
uranium, rare earths, gemstones
and semi-precious materials, and
optical-grade calcite)**

2. The project would result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Significance Guideline 1 addresses question a) of Section X of Appendix G of the State CEQA Guidelines. MRZ-2 and MRZ-3 areas are shown on Figure 2. A typical MRZ-2 area would include an operating mine, or an area where extensive sampling has indicated the presence of a significant mineral deposit. MRZ-3 areas contain known mineral deposits that may qualify as mineral resources and could result in the reclassification of specific localities into the MRZ-2 category. Areas of Quaternary alluvium are indicated on Figure 1. It is now economically feasible to mine alluvial deposits in the eastern portion of the County provided there is relatively fast access to Interstates and/or State routes to economically bring the product to market in the western region of San Diego County. Existing (and in some cases historic) sand and gravel mines, quarries, and gemstone deposits are shown on Figure 3. Some mines with important resources in the County may not be recorded in the County's database and, therefore, would not be shown on Figure 3. However, that does not preclude consideration of other sites not shown. A significant impact would occur if these important resources were to become permanently inaccessible and the resources have been determined to be minable, processable, and marketable under the technologic and economic conditions that exist at present or which can be estimated to exist in the next 50 years and meets or exceeds the CGS State Geologist minimum dollar values for mineral resources.

Significance Guideline 2 addresses question b) of Section X of Appendix G of the State CEQA Guidelines. This guideline addresses projects which would result in the loss of availability of mineral resources on lands zoned as S82 by the Extractive Land Use Overlay, or General Plan Extractive Land Use Designation (25) and Impact-Sensitive Land Use Designation (24). The S82 is a Zoning designation where mining and quarrying are allowed, and the General Plan 25 and 24 designations are applied to areas with economically extractable mineral resources. The County of San Diego uses these designations to group lands of known, existing, and potential mineral resources. In some cases, Impact-Sensitive Land Use Designation (24) is not always applied as a

designation for mineral resources and can be used to designate resources such as for the protection of biological habitat or other environmentally sensitive resources.

Any project within a MRZ-2 zone, or within 1,300 feet of a MRZ-2 zone, is required to analyze mineral resource impacts up to 1,300 feet from the project site. 1,300 feet is the setback generally required to achieve acceptable noise levels from a mining or quarry operation to offsite noise sensitive land uses. If the project contributes to permanent losses of onsite and/or offsite MRZ-2 zoned mineral resources (up to 1,300 feet from the project site) that exceed the marketability and minimum dollar values, the impact would be considered significant.

Conversely, the mineral resources of a project site under Guidelines 1 and 2 above may already be lost if the site is surrounded by residential, commercial, or other land uses that are incompatible to mining. Therefore, the mineral resources on project sites located in those areas may not be considered a significant loss if it is deemed that they have already been lost by existing incompatible land uses up to 1,300 feet from the project site. For projects which propose permanent open space for the protection of sensitive environmental resources, the land within the open space may be considered to be permanently inaccessible for future mining activities and could contribute to mineral resource loss.

5.0 STANDARD MITIGATION AND PROJECT DESIGN FACTORS

A project will be evaluated for its effect on mineral resources under the criteria specified in Section 4.0. If mitigation or project design factors are identified that could reduce a significant effect, those shall be incorporated into the project. While project design elements and/or mitigation shall be incorporated into a project, it may not always be possible to reduce the impact to below a level of significant. In general, if mitigation or project redesign does not reduce a significant impact to mineral resources to below a level of significant, the impact will be considered significant and unmitigable.

The standard mitigation and design factors for impacts to mineral resources are meant to ensure that a significant resource will not be made inaccessible for future extraction. For this reason, the only mitigation and design factors appropriate would be to extract the resource and reclaim the site before project approval; to avoid the site, which would only be possible if the project site is large enough to accommodate avoidance and to also not be impacted by future mining of the resource; or to approve only land-uses that can be considered minor or temporary in nature.