



March 25, 2011

Mr. David Albright, Manager
Ground Water Office
United States Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, California, CA 94105-3901

Re: Request for Modification and Transfer of Underground Injection Control Permit
No. AZ396000001 from Florence Copper, Inc. to Curis Resources (Arizona) Inc.

Dear Mr. Albright:

The enclosed Underground Injection Control (UIC) Program Permit application (Application) is submitted to Region 9 of the United States Environmental Protection Agency (USEPA) in response to your letter of August 5, 2010 regarding the referenced request of Curis Resources (Arizona) Inc. (Curis Arizona) for the modification and transfer of UIC Permit No. AZ396000001 (UIC Permit) from Florence Copper Inc. to Curis Arizona.

The enclosed Application documents include:

- a completed and signed UIC Permit Application form (EPA Form 7520-6) and all attachments required by the instructions included with the form;
- a master Table of Contents identifying all attachments and all figures, tables, and exhibits submitted with the attachments;
- a glossary and table of acronyms; and
- a table showing existing UIC Permit provisions and proposed amendments to some of those provisions.

A copy of Curis Arizona's January 31, 2011 application to the Arizona Department of Environmental Quality (ADEQ) to amend and transfer the related Aquifer Protection Permit No. 101704 (APP, and APP Application) is enclosed with this submittal. Some of the attachments to this Application refer to information contained in attachments to the APP Application and *vice versa*. To minimize duplication and to assist with agency review, Curis Arizona is thus enclosing a copy of the APP Application with this Application and is providing copies of this letter and all enclosed Application documents to ADEQ.



The attachments to this Application, in conjunction with the referenced attachments to the APP Application, update and build upon information that formed the basis for the APP and the UIC Permit that were originally issued to BHP Copper Inc. in 1997. The attachments provide a comprehensive description of all facets of Curis Arizona's proposal to develop an *in-situ* copper recovery (ISCR) facility at the Florence Copper Project (FCP) site. Key aspects of the proposed development relative to the UIC Permit include:

- No proposed change to the lateral or vertical boundaries of the existing aquifer exemption.
- No proposed change to the boundary of the ISCR area, the area within the aquifer exemption in which the construction and operation of injection and recovery wells are authorized.
- No proposed change to the area of review (AOR), even though recent computer models justify substantial reductions in the AOR's size.
- Improved and updated design of injection and recovery wells.
- Improved and updated procedures for ensuring mechanical integrity of injection and recovery wells.
- Two phases of FCP development:
 - Phase 1 will involve the construction of a pilot-scale Production Test Facility (PTF), including 24 test wells, which will operate for approximately 14 months while maintaining hydraulic control to generate sufficiently concentrated ISCR solutions needed for:
 - forecasting solution characteristics over the operating life of the FCP; and
 - evaluating treatment and recovery technologies for use during commercial operations to increase groundwater conservation by increasing copper recovery efficiencies, by re-using treated groundwater, and by reducing the amount of water and related sediment required to be placed in water impoundments.
 - Phase 2 will involve the sequential development of the ISCR area in accordance with UIC Permit requirements, the installation and operation of surface facilities that will meet ADEQ's "best available demonstrated control technology" criteria, and the processing of ISCR solutions in accordance with UIC Permit requirements and information gained from Phase 1.
- A comprehensive facility and groundwater monitoring program that has a 15-year database of groundwater quality at point of compliance wells surrounding the ISCR area.
- Financial assurance covering detailed closure and post-closure estimates for Phase 1 and 2 operations.

Additionally, Curis Arizona has retained consultants to evaluate compliance of the proposed FCP with the National Historic Preservation Act and the Endangered Species Act, and will shortly submit reports to you under separate cover documenting those compliance activities.

We trust that the enclosed documents demonstrate Curis Arizona's technological, financial, and environmental commitment to the sustainable construction, operation, and closure of the FCP. We look forward to working closely with USEPA during your review of our Application, and are available to meet with you and your staff at your convenience to discuss the information in the Application. As a first step, we request a progress meeting with you within the next 6 weeks to discuss your initial findings.



Please contact Ms. Loretta Ford, Senior Manager, Environment and Sustainability, at +1.604.684.6365 (ext. 6762) if you have questions about the enclosed documents or require additional information.

Sincerely,

Curis Resources (Arizona) Inc.



Michael McPhie, B.Sc, M.Sc., QEP
President and Chief Executive Officer

Enc: Signed Underground Injection Control Permit Application Form, with attachments
Aquifer Protection Program Permit amendment application





United States Environmental Protection Agency
**Underground Injection Control
 Permit Application**
 (Collected under the authority of the Safe Drinking
 Water Act. Sections 1421, 1422, 40 CFR 144)

I. EPA ID Number		
	T/A	C
U		

Read Attached Instructions Before Starting
 For Official Use Only

Application approved mo day year	Date received mo day year	Permit Number	Well ID	FINDS Number

II. Owner Name and Address			III. Operator Name and Address		
Owner Name Curis Resources (Arizona) Inc.			Owner Name Same		
Street Address 1575 W. Hunt Highway		Phone Number (520) 374-3984	Street Address Same		Phone Number
City Florence	State AZ	ZIP CODE 85132	City Same	State	ZIP CODE

IV. Commercial Facility	V. Ownership	VI. Legal Contact	VII. SIC Codes
<input type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Operator	SIC-1021 SIC-3331

VIII. Well Status (Mark "x")			
<input type="checkbox"/> A. Operating	Date Started mo day year	<input type="checkbox"/> B. Modification/Conversion	<input checked="" type="checkbox"/> C. Proposed

IX. Type of Permit Requested (Mark "x" and specify if required)				
<input type="checkbox"/> A. Individual	<input checked="" type="checkbox"/> B. Area	Number of Existing Wells 21	Number of Proposed Wells 2,500	Name(s) of field(s) or project(s) Florence Copper Project

X. Class and Type of Well (see reverse)			
A. Class(es) (enter code(s)) III	B. Type(s) (enter code(s)) G	C. If class is "other" or type is code 'x,' explain	D. Number of wells per type (if area permit) 2,500

XI. Location of Well(s) or Approximate Center of Field or Project												XII. Indian Lands (Mark "x")	
Latitude			Longitude			Township and Range						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Deg 33	Min 02	Sec 56	Deg 111	Min 25	Sec 52	Sec 28,33	Twp 4S	Range 9E	1/4 Sec	Feet From	Line		

XIII. Attachments

(Complete the following questions on a separate sheet(s) and number accordingly; see instructions)
 For Classes I, II, III, (and other classes) complete and submit on a separate sheet(s) Attachments A-U (pp 2-8) as appropriate. Attach maps where required. List attachments by letter which are applicable and are included with your application.

XIV. Certification

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32)

A. Name and Title (Type or Print) Michael McPhie, President and Chief Executive Officer	B. Phone No. (Area Code and No.) (604) 684-6365
C. Signature 	D. Date Signed March 25, 2011

CURIS RESOURCES (ARIZONA) INC.
APPLICATION TO AMEND UIC PERMIT NO. AZ396000001

ATTACHMENT B – MAP OF AREA

**CURIS RESOURCES (ARIZONA) INC.
APPLICATION TO AMEND UIC PERMIT NO. AZ396000001
ATTACHMENT B – MAP OF AREA**

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B.1 Introduction

This Attachment B has been prepared in support of an application by Curis Resources (Arizona) Inc. (Curis Arizona) to the United States Environmental Protection Agency (USEPA) to transfer, with amendments, Underground Injection Control Class III (Area) Permit No. AZ396000001 (UIC Permit) from Florence Copper Inc. (Florence Copper) to Curis Arizona.

Curis Arizona is proposing to develop an *in-situ* copper recovery (ISCR) facility, referred to as the Florence Copper Project (FCP). The FCP will produce copper from a porphyry copper oxide deposit (oxide zone) located under the FCP site. USEPA originally issued the UIC Permit to BHP Copper Inc. (BHP Copper) to operate a similar facility on the same site. The FCP facility proposed by Curis Arizona consists of injection and recovery wells, a process plant, several water storage structures, tanks, piping, water treatment facilities, and associated control rooms, warehouses, administrative buildings, and other infrastructure. The proposed ISCR area will be constructed within an area approximately 212 acres in size that is located within property owned by Curis Arizona and an Arizona State Mineral Lease held by Curis Arizona.

The injection wells will be used to inject a dilute sulfuric-acid solution (injectate solution or lixiviant) into the oxide zone to dissolve copper-bearing minerals, liberating copper into solution. The resulting copper-laden pregnant leach solution (PLS) will be pumped back to the surface by the recovery wells. Copper will be stripped from the PLS by means of a solvent extraction/electrowinning (SX/EW) process. Once copper has been recovered from the PLS, the chemistry of the “barren” PLS (raffinate) will be adjusted and will be re-injected back into the oxide zone as lixiviant for further copper dissolution. Using this closed-loop system, the majority of the process solutions will be recycled. A small amount of make-up water, an associated raffinate-bleed needed to adjust raffinate chemistry, and a relatively small stream of groundwater pumped to maintain hydraulic control will be discharged to on-site water impoundments.

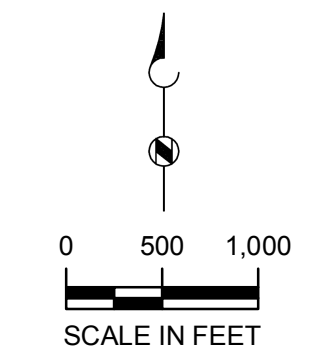
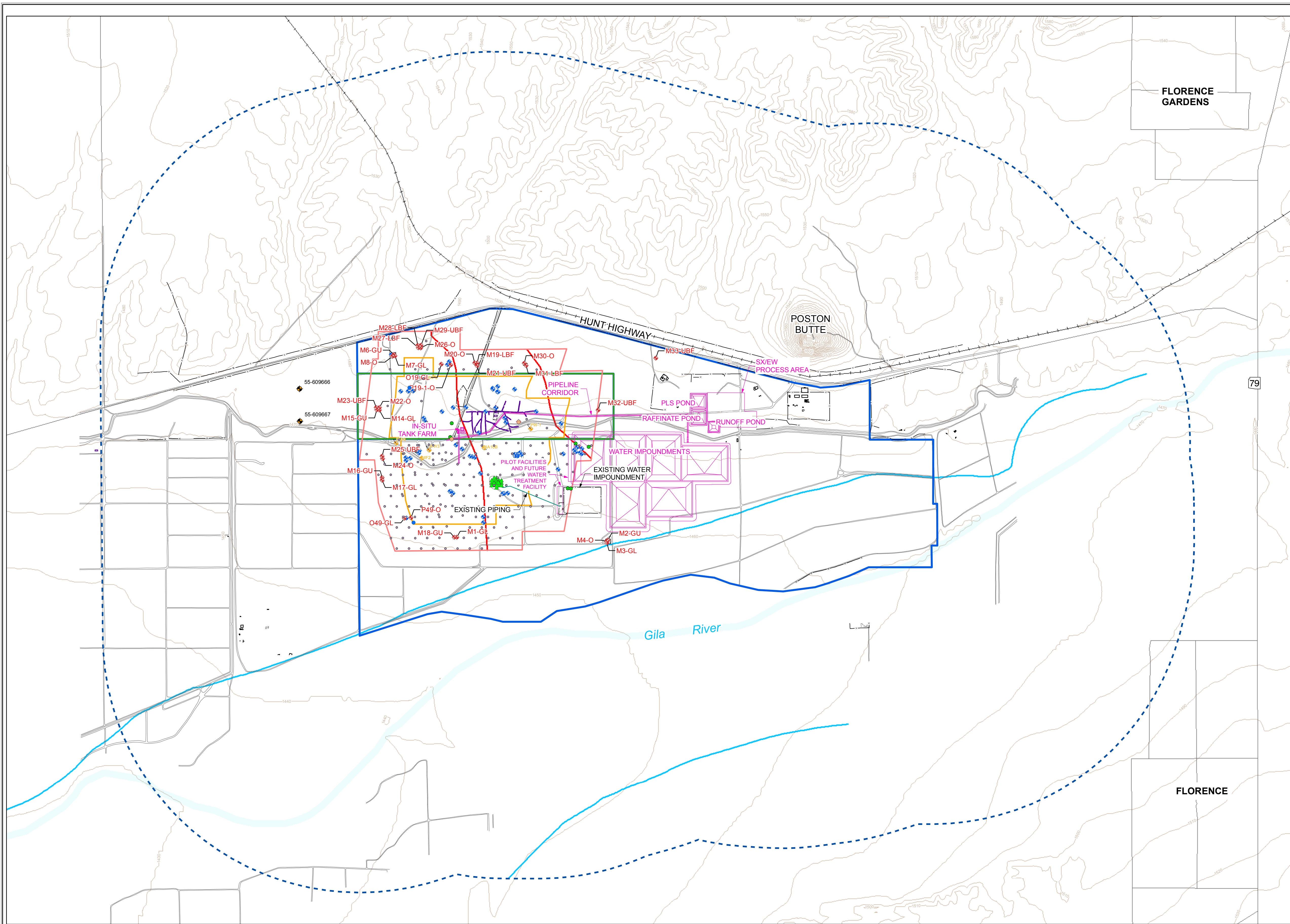
This Attachment B includes a site plan that extends one mile beyond the Curis Arizona property boundary, and that depicts key features of the proposed FCP and the surrounding area as required for Attachment B under USEPA Form 7520-6. Features depicted on the map include:

- Topography;
- Project area consisting of the Curis Arizona property and Arizona State Mineral Lease No. 11-26500;
- ISCR area and the associated Area of Review (AOR);
- The proposed SX/EW plant process area and related process facilities and ponds;
- One existing and six proposed water impoundments;
- Point of compliance (POC) wells installed by BHP Copper for monitoring groundwater quality;
- Currently producing water wells within the AOR;
- Class III wells within the AOR that were installed by BHP Copper in 1997 to operate a pilot-scale test;
- Geotechnical borings and exploration coreholes within the AOR;
- Subsurface mines constructed by a previous owner, Continental Oil Company (Conoco), within the AOR;
- Residences, offices, and other buildings on and near to the property (there are no buildings currently located within the AOR);
- Major geologic faults within the AOR;
- Roads within the AOR and surrounding areas; and
- Wells within ¼ mile of the Curis Arizona property boundary.

Certain features required to be shown on a map, according to the instructions for Attachment B of USEPA Form 7520-6, do not occur within the project area or within one mile of the project area as described below.

The nearest public water supply systems are located more than one mile to the east and southeast of the Curis Arizona property boundary, upgradient from the FCP site and near to the town of Florence. Other public water supply systems are located more than two miles west and north of the Curis Arizona property boundary.

No hazardous waste treatment, storage, or disposal facilities exist at the FCP site or within one mile of the AOR. No abandoned wells, drywells, springs, quarries, drinking water wells, or public water supply wells exist within the one-mile radius. There are two aggregate mines, one on the east property boundary and one to the southwest of the property, that are within the one-mile radius.



EXPLANATION

- VADOSE ZONE CHARACTERIZATION PIEZOMETER
- VADOSE ZONE CHARACTERIZATION BORING
- GEOTECHNICAL BORING
- ◆ POC WELL
- ◆ NON-POC WELL
- ◆ PRODUCING WELL
- ▲ BHP TEST WELL
- EXPLORATION COREHOLE
- - - ONE MILE BOUNDARY
- ISCR AREA
- STATE MINERAL LEASE BOUNDARY
- CURIS PROPERTY BOUNDARY
- AREA OF REVIEW
- CONOCO UNDERGROUND MINE WORKINGS
- PROPOSED FACILITIES
- FAULT TRACE
- 100 YEAR FLOOD PLAIN BOUNDARY
- MAJOR CONTOUR (50 FT)
- MINOR CONTOUR (10 FT)

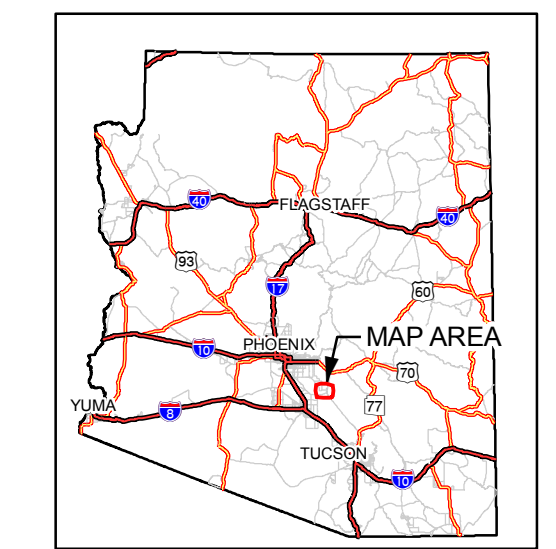


Figure B-1
SITE PLAN
CURIS RESOURCES (ARIZONA) INC.
FLORENCE, ARIZONA