FLORENCE COPPER, INC.

UIC PERMIT APPLICATION

FLORENCE COPPER PROJECT – PRODUCTION TEST FACILITY

ATTACHMENT B – MAP OF AREA

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- Figure Temp APP RTC(E) 18-1 Wells and Core Holes within 500 Feet of PTF
- Figure 8-1 (Revised 072414) Site Plan

B.1 Introduction

This Attachment B has been prepared in support of an application by Florence Copper, Inc. (Florence Copper) to the United States Environmental Protection Agency (USEPA) for issuance of an Underground Injection Control Class III (Area) Permit (UIC Permit) for the planned Production Test Facility (PTF), to be located at the Florence Copper Project (FCP) property in Pinal County, Arizona.

Florence Copper is proposing to develop the PTF to demonstrate the feasibility of operating an in-situ copper recovery (ISCR) facility at the FCP property. The PTF will produce a limited amount of copper from a porphyry copper oxide deposit (oxide zone) located beneath the FCP property. The PTF proposed by Florence Copper consists of injection and recovery wells, a process plant, water storage structures, tanks, piping, water treatment facilities, and associated control rooms, warehouses, administrative buildings, and other infrastructure. The proposed PTF will be constructed within an area approximately 13.8 acres in size that is located on an Arizona State Mineral Lease land held by Florence Copper, that lies within property owned by Florence Copper.

The injection wells will be used to inject a dilute sulfuric-acid solution (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 an on-site water impoundment.

This Attachment includes a site plan (Figure B-1) that extends one mile beyond the Florence Copper property boundary, and depicts key features of the proposed PTF 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 Florence Copper property and Arizona State Mineral Lease No. 11-26500;
- PTF area and the associated Area of Review (AOR);
- The proposed SX/EW plant process area and related process facilities and ponds;
- Existing and proposed water impoundments;
- Point of compliance (POC) wells installed for monitoring groundwater quality;
- Currently producing water wells on the Florence Copper property and outside of the AOR (there are no producing water wells located within the AOR);
- Class III wells on the Florence Copper property and outside of the AOR installed by BHP Copper in 1997 to operate a pilot-scale test;
- Geotechnical borings and exploration core holes within the AOR (exploration core holes are shown on Figure Temp APP RTC(E) 18-1included in Exhibit B-1);
- Subsurface mines constructed by a previous owner, Continental Oil Company (Conoco), outside of the AOR (there are no subsurface mines within the AOR);
- Residences, offices, and other buildings on and near to the property (there are no buildings currently located within the AOR);
- Roads within the AOR and surrounding areas; and
- Wells within ¼ mile of the Florence Copper property boundary.

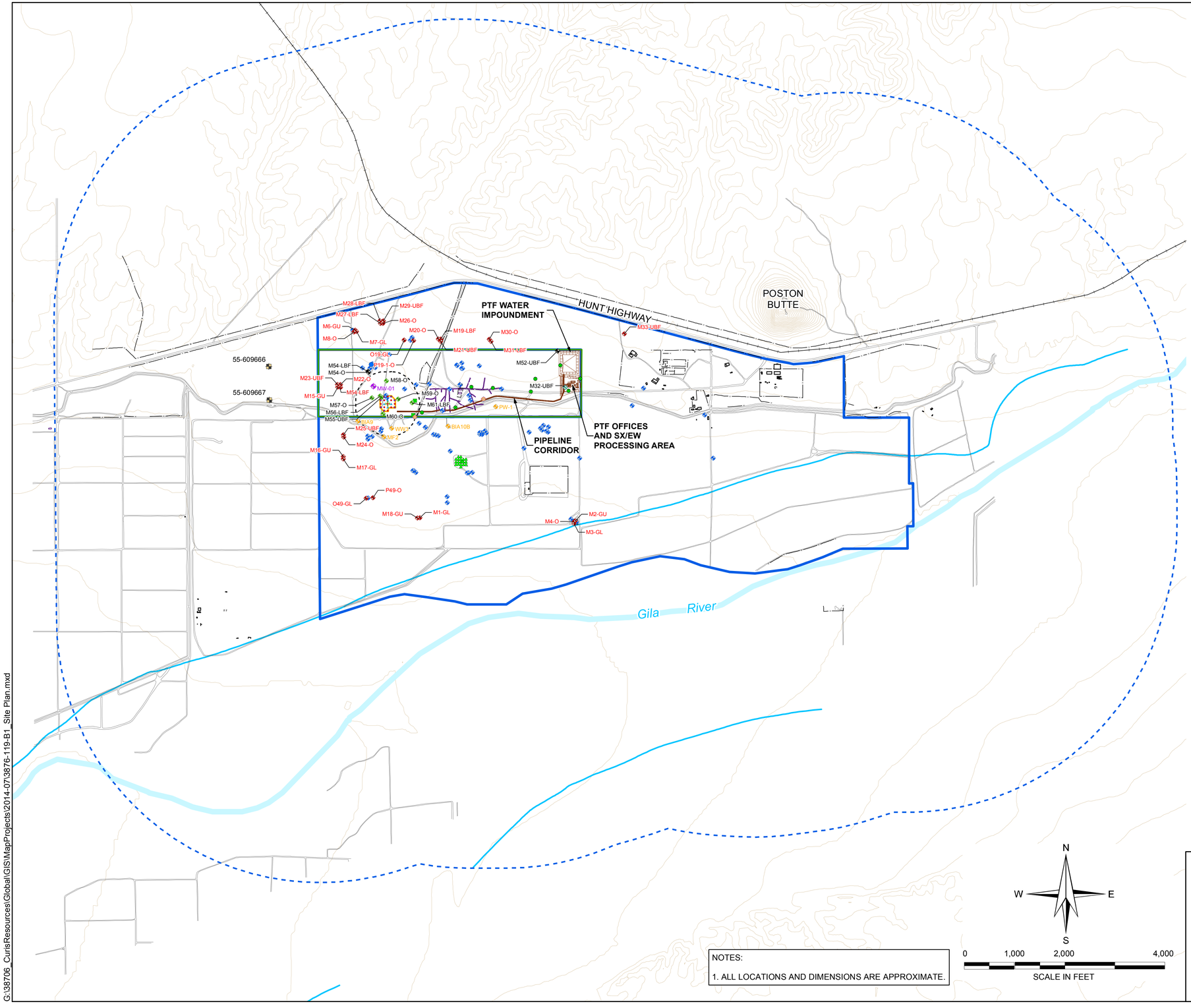
Certain features required to be shown on a map, according to the instructions for Attachment B of USEPA Form 7520-6, do not occur within the project area or within one mile of the project area as described below.

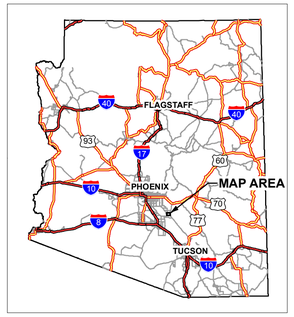
The nearest public water supply systems are located more than one mile to the east and southeast of the Florence Copper property boundary, upgradient from the FCP property near the town of Florence, Arizona. Other public water supply systems are located approximately 1.9 miles west and north of the Florence Copper property boundary.

No major geologic faults occur within the AOR; however, the localized Sidewinder fault does pass through the AOR at depth. Because it does not project to the ground surface or the bedrock surface within the AOR, it is not shown on the map.

No hazardous waste treatment, storage, or disposal facilities exist at the FCP property or within one mile of the AOR. No abandoned wells, drywells, springs, quarries, drinking water wells, or public water supply wells exist within a one-mile radius of the Florence Copper property. There are two aggregate mines, one on the east property boundary and one to the southwest of the property, that are within the 1-mile radius.

Selected additional figures previously submitted in support of the application for Aquifer Protection Permit (APP) No. 106360 are provided in Exhibit B-1. Figures included in Exhibit B-1 are identified as Figure 12-1, Figure Temp APP RTC (E) 18-1, and Figure 8-1 (Revised 072414). The content depicted on these maps is included on Figure A-9 and Figure P-1 of this Application; however USEPA has requested that these maps also be provided in Exhibit B-1 for the reviewers' convenience.





LEGEND

- MW-01 OPERATIONAL MONITORING WELL (APPROXIMATE LOCATION BASED ON REQUIREMENTS OF APP 106360)
- OFF-SITE WELL
- PRODUCTION WELL
- VADOSE ZONE CHARACTERIZATION PIEZOMETER
- VADOSE ZONE CHARACTERIZATION BORING
- SUPPLEMENTAL MONITORING WELL
- EXISITNG POC WELL (UIC AZ396000001)
- APPROVED POC WELL - NOT DRILLED YET
- DRY POC WELL TO BE PLUGGED AND ABANDONED
- NON-POC WELL
- BHP TEST WELL

PROPOSED TEST WELLS

- INJECTION
- OBSERVATION
- RECOVERY
- MULTI-LEVEL SAMPLING WELL

ABANDONED GEOTECHNICAL BORINGS

- KNIGHT PIESOLD, OCTOBER 2011
- TERRACON, 1995-1996
- PTF WELL FIELD
- ONE MILE BOUNDARY
- CONOCO UNDERGROUND MINE WORKINGS
- STATE MINERAL LEASE BOUNDARY
- PROPERTY BOUNDARY
- AREA OF REVIEW
- 100 YEAR FLOOD PLAIN BOUNDARY
- CONTOUR (10 FT)
- EXISTING INFRASTRUCTURE
- PROPOSED PTF INFRASTRUCTURE

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NOTES:
1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

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FLORENCE COPPER INC.
FLORENCE, ARIZONA

SITE PLAN

FLORENCE COPPER INC.

SCALE: AS SHOWN
JULY 2014

FIGURE B-1

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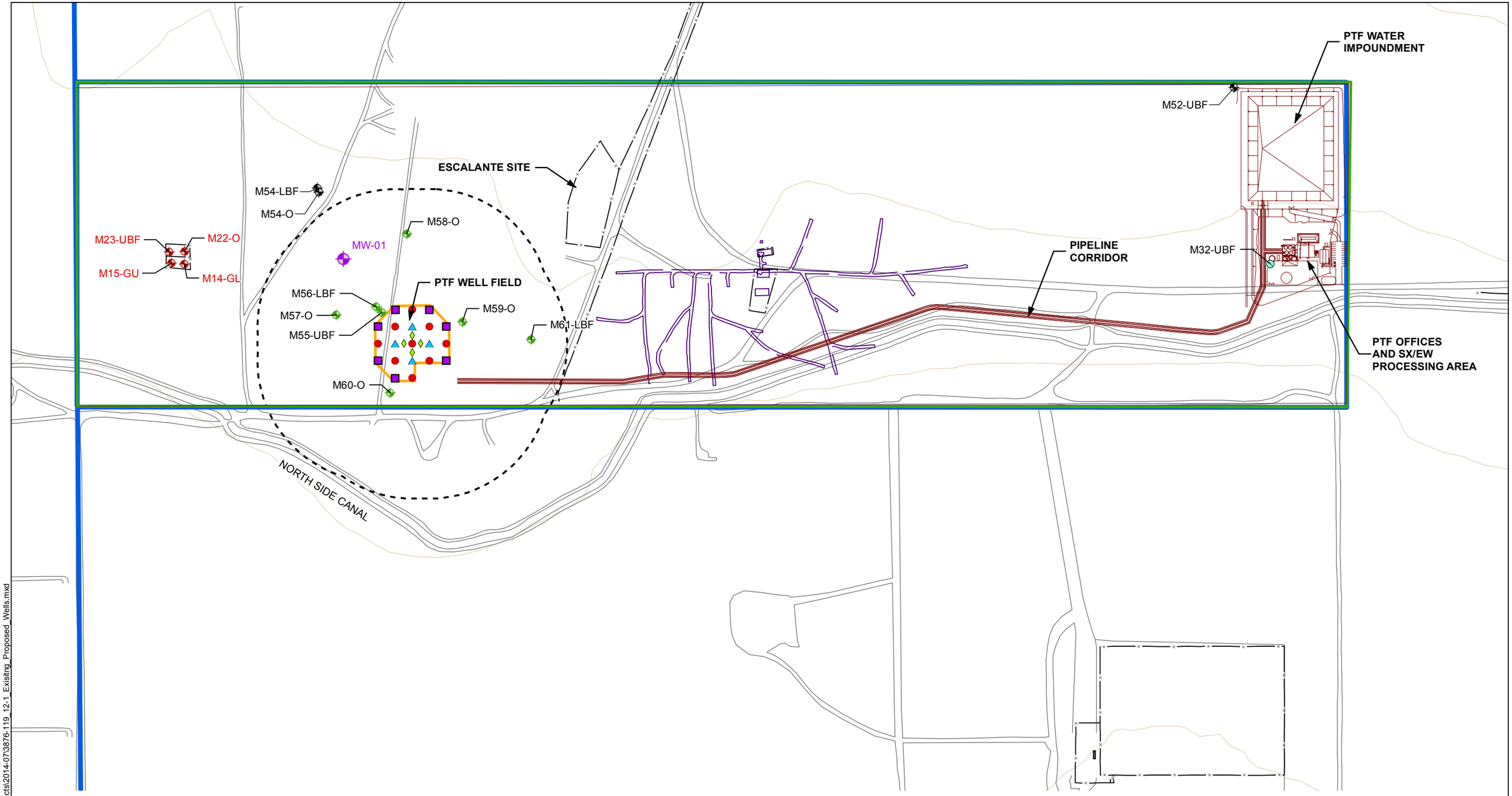
EXHIBIT B-1

Revised Figures from Temporary APP Application and Previous Comment Responses

Figure 12-1, Existing and Proposed Point of Compliance Wells

Figure Temp APP RTC(E) 18-1 Wells and Core Holes within 500 Feet of PTF

Figure 8-1 (Revised 072414) Site Plan



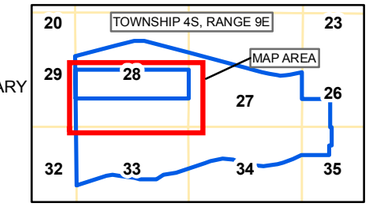
LEGEND

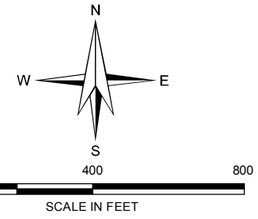
- MW-01 OPERATIONAL MONITORING WELL (APPROXIMATE LOCATION BASED ON REQUIREMENTS OF APP 106360)
- EXISTING PTF POC WELL
- DRY POC WELL TO BE PLUGGED AND ABANDONED
- APPROVED POC WELL - NOT DRILLED YET
- SUPPLEMENTAL MONITORING WELL

PROPOSED TEST WELLS

- INJECTION
- OBSERVATION
- RECOVERY
- MULTI-LEVEL SAMPLING WELL

- CONOCO UNDERGROUND MINE WORKINGS
- PTF WELL FIELD
- STATE MINERAL LEASE BOUNDARY
- PROPERTY BOUNDARY
- 500 FOOT AREA OF REVIEW
- CONTOUR (10 FT)





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EXISTING AND PROPOSED POINT OF COMPLIANCE AND SUPPLEMENTAL MONITORING WELLS

FLORENCE COPPER INC.

SCALE: AS SHOWN
JULY 2014

FIGURE 12-1

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LEGEND

- MW-01 OPERATIONAL MONITORING WELL (APPROXIMATE LOCATION BASED ON REQUIREMENTS OF APP 106360)
- EXISTING PTF POC WELL
- APPROVED POC WELL - NOT DRILLED YET
- SUPPLEMENTAL MONITORING WELL
- NON-POC WELL
- NON-POC WELL, ABANDONED
- ABANDONED VADOSE ZONE CHARACTERIZATION PIEZOMETER
- EXPLORATION CORE HOLE
- CORE HOLE-ABANDONED
- EXPLORATION CORE HOLE TO BE ABANDONED
- VADOSE ZONE CHARACTERIZATION BORING

PROPOSED TEST WELLS

- INJECTION
- OBSERVATION
- RECOVERY
- MULTI-LEVEL SAMPLING WELL

ABANDONED GEOTECHNICAL BORING

- KNIGHT PIESOLD, OCTOBER 2011
- TERRACON, 1995-1996
- CONOCO UNDERGROUND MINE WORKINGS
- PROPOSED COMPONENTS OF PRODUCTION TEST FACILITY (PTF)
- PTF WELL FIELD
- STATE MINERAL LEASE BOUNDARY
- LEGAL PROPERTY BOUNDARY
- AREA OF REVIEW
- PMA BOUNDARY
- TOPOGRAPHIC CONTOUR

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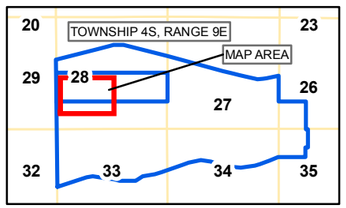

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FIGURE TEMP APP RTC(E) 18-1
WELLS AND CORE HOLES WITHIN 500 FEET OF PTF

FLORENCE COPPER INC.

SCALE: AS SHOWN
JULY 2014

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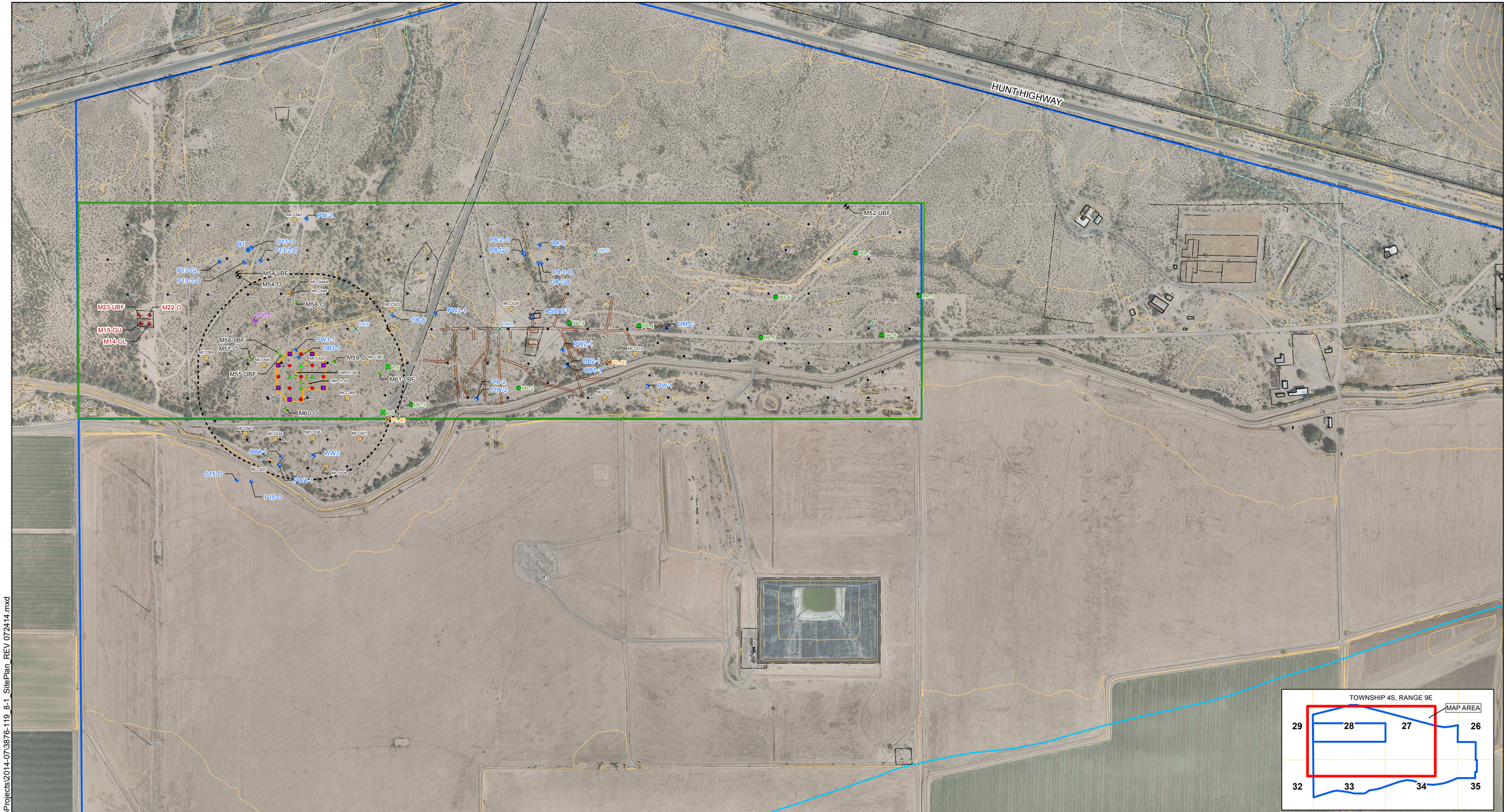

LEGEND

- MW-01 OPERATIONAL MONITORING WELL (APPROXIMATE LOCATION BASED ON REQUIREMENTS OF APP 106360)
- EXISTING POC WELL
- APPROVED POC WELL - NOT DRILLED YET
- NON-POC WELL
- DRY POC WELL TO BE PLUGGED AND ABANDONED
- NON-POC WELL TO BE PLUGGED AND ABANDONED
- ABANDONED VADOSE ZONE CHARACTERIZATION PIEZOMETER
- ABANDONED VADOSE ZONE CHARACTERIZATION BORING
- PROPOSED SUPPLEMENTAL MONITORING WELL
- EXPLORATION CORE HOLE
- CORE HOLE-ABANDONED

PROPOSED TEST WELLS

- INJECTION
- OBSERVATION
- RECOVERY
- MULTI-LEVEL SAMPLING WELL

ABANDONED GEOTECHNICAL BORINGS

- KNIGHT PIESOLD, OCTOBER 2011
- TERRACON, 1995-1996
- CONOCO UNDERGROUND MINE WORKINGS
- STATE MINERAL LEASE BOUNDARY
- PROPERTY BOUNDARY
- PTF WELL FIELD AREA
- 500-FOOT AREA OF REVIEW
- TOPOGRAPHIC CONTOUR

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FLORENCE, ARIZONA

SITE PLAN
(REVISED 7/24/2014)

FLORENCE COPPER INC.

SCALE: AS SHOWN
JULY 2014

FIGURE 8-1

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