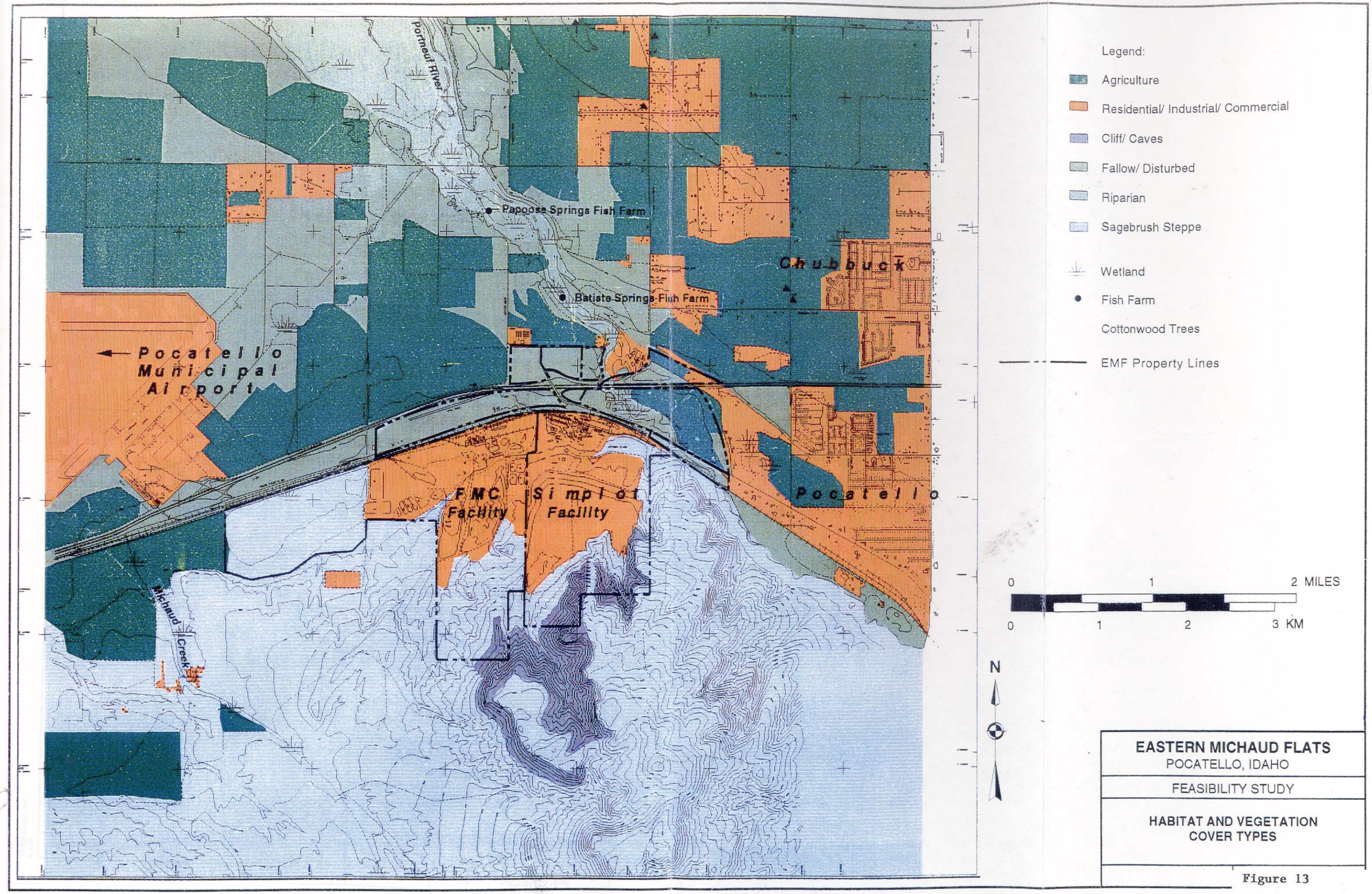


EASTERN MICHAUD FLATS
POCATELLO, IDAHO

FEASIBILITY STUDY

HABITAT AND VEGETATION COVER TYPES

Figure 13

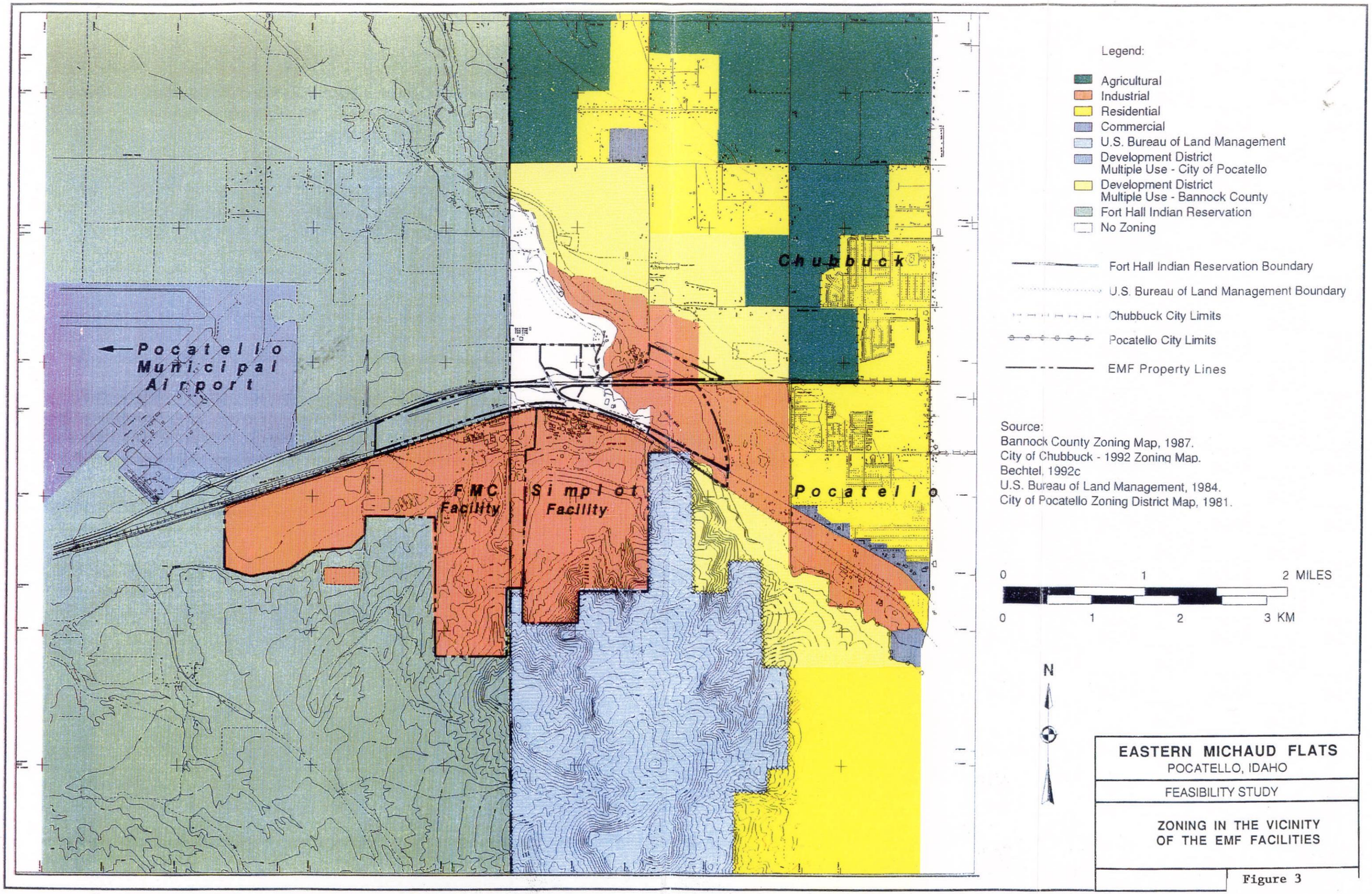
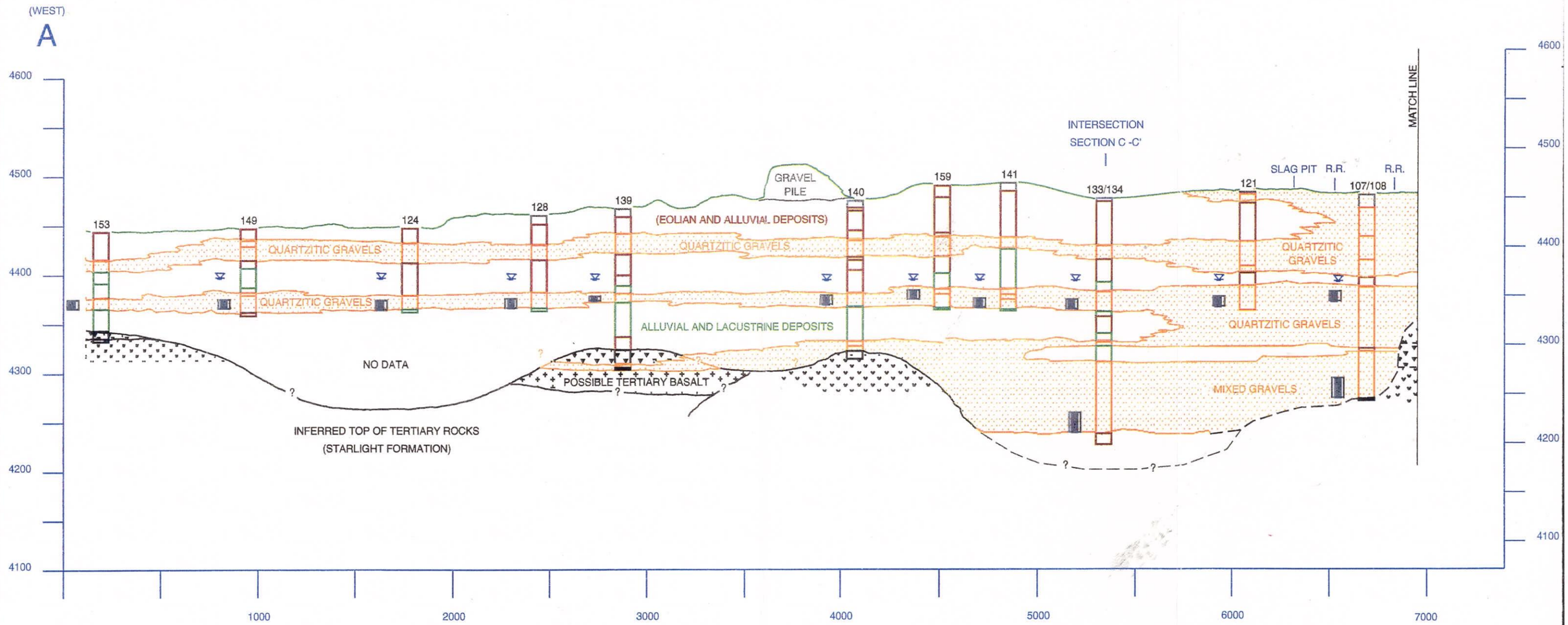

Legend:
Agricultural
Industrial
Residential
Commercial
U.S. Bureau of Land Management
Development District
Multiple Use - City of Pocatello
Development District
Multiple Use - Bannock County
Fort Hall Indian Reservation
No Zoning
Fort Hall Indian Reservation Boundary
U.S. Bureau of Land Management Boundary
Chubbuck City Limits
Pocatello City Limits
EMF Property Lines
Source:
Bannock County Zoning Map, 1987.
City of Chubbuck - 1992 Zoning Map.
Bechtel, 1992c
U.S. Bureau of Land Management, 1984.
City of Pocatello Zoning District Map, 1981.
0 1 2 MILES
0 1 2 3 KM
N
Pocatello Municipal Airport
Chubbuck
FMC Facility
Simplot Facility
Pocatello
EASTERN MICHAUD FLATS
POCATELLO, IDAHO
FEASIBILITY STUDY
ZONING IN THE VICINITY OF THE EMF FACILITIES

Figure 3



Legend:

- Water level
- Well screen

SAND
GRAVELLY SAND
SILTY SAND
CLAYEY SAND
SANDSTONE
GRAVEL
SAND AND GRAVEL
SILTY, SANDY GRAVEL
SILTY GRAVEL
CLAYEY GRAVEL

SILT
CLAYEY SILT
SANDY SILT
GRAVELLY SILT

CLAY
SILTY CLAY
SANDY CLAY
GRAVELLY CLAY

BASALT
RHYOLITE
TUFF

CALICHE
PEAT

ASPHALT
CONCRETE
FILL

NOTES:

1) Ground surface line is generalized
2) Vertical exaggeration = 5x
3) Cross-section is generalized. See boring logs in Appendix for further details.

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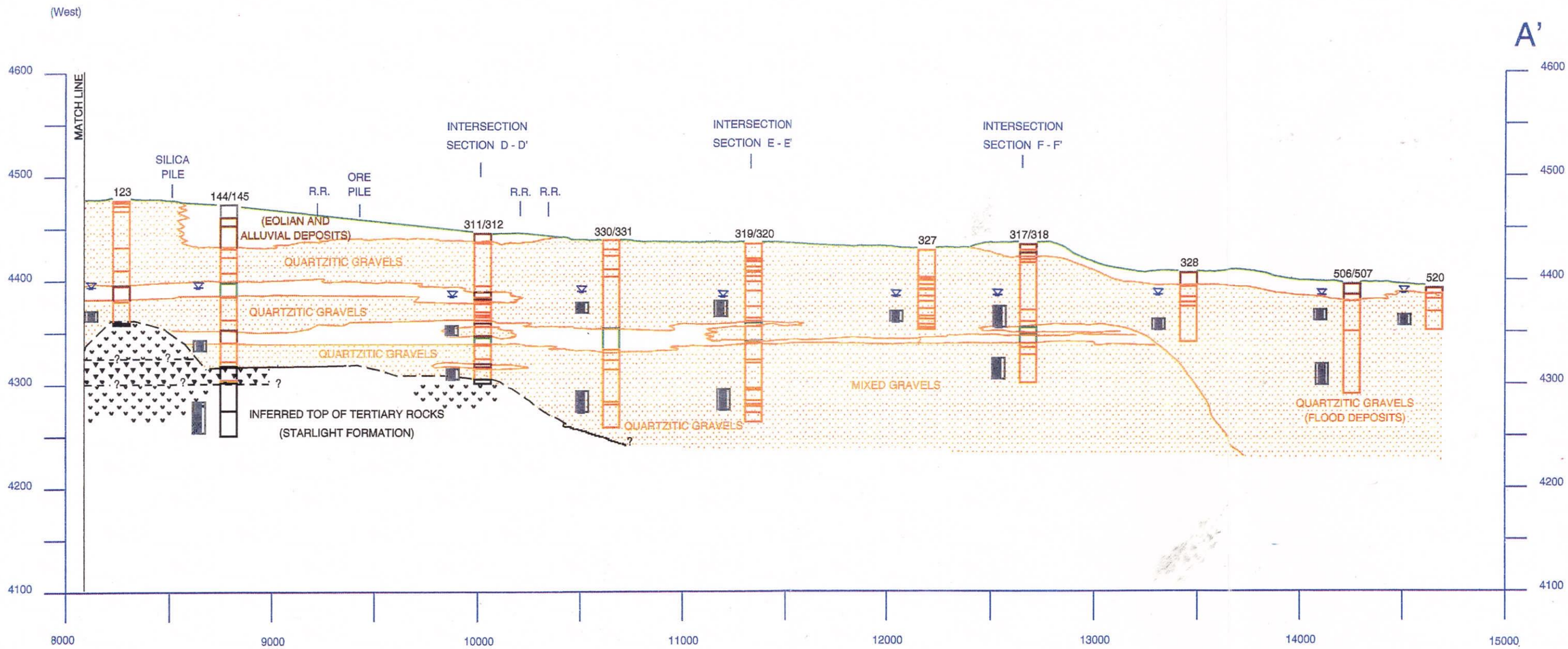
EASTERN MICHAUD FLATS
POCATELLO, IDAHO

Hydrogeologic Cross-Section A-A'
sheet 1 of 2

Job Number	Drawing No.	Rev.
21372	FIGURE 6	



Legend:

- Water Level
- Well Screen

SAND
GRAVELLY SAND
SILTY SAND
CLAYEY SAND
SANDSTONE
GRAVEL
SAND AND GRAVEL
SILTY, SANDY GRAVEL
SILTY GRAVEL
CLAYEY GRAVEL

SILT
CLAYEY SILT
SANDY SILT
GRAVELLY SILT

CLAY
SILTY CLAY
SANDY CLAY
GRAVELLY CLAY

BASALT
RHYOLITE
TUFF

CALICHE
PEAT

ASPHALT
CONCRETE
FILL

NOTES:

1) Ground surface line is generalized
2) Vertical exaggeration = 5x
3) Cross-section is generalized. See boring logs in Appendix for further details.

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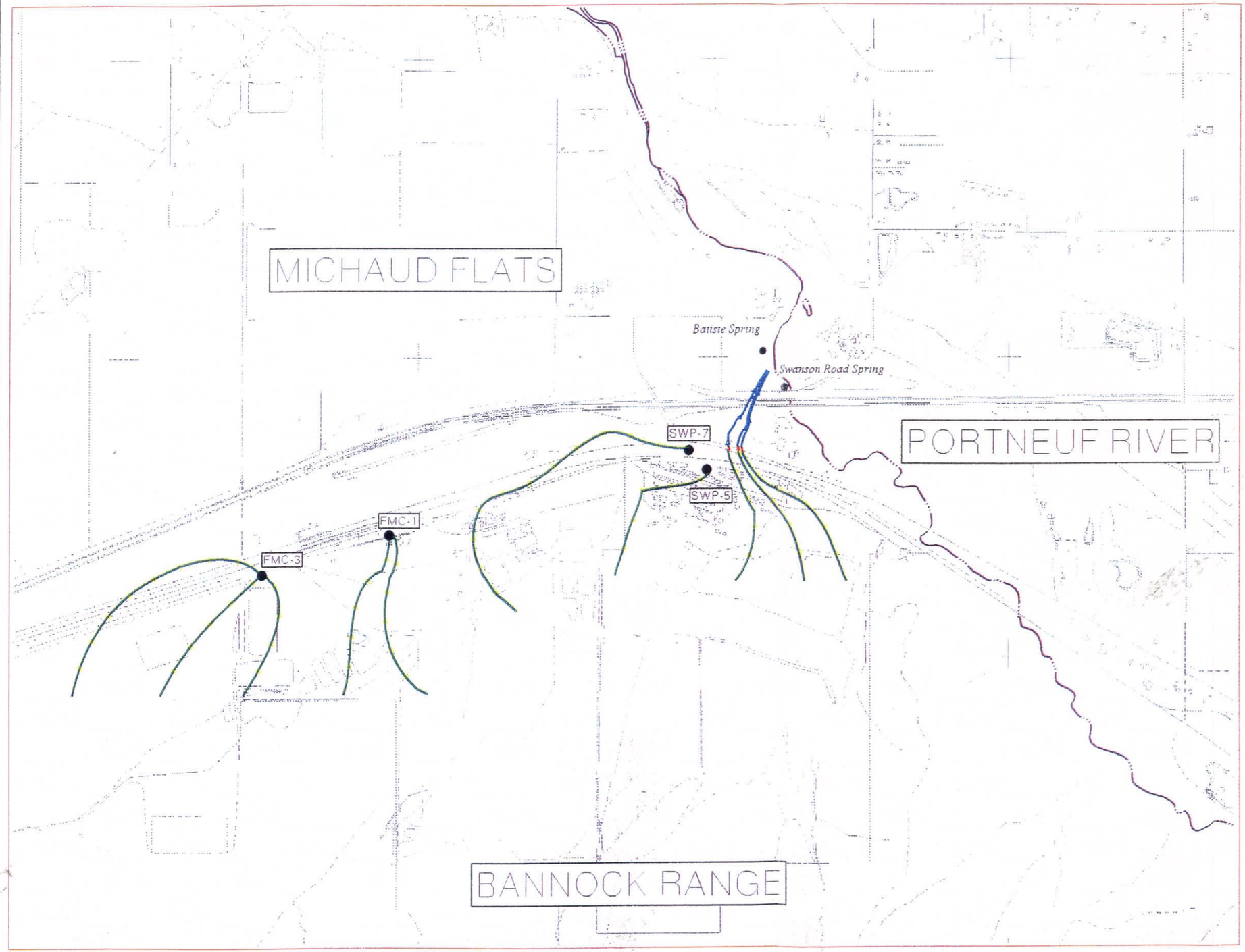
POCATELLO, IDAHO

Hydrogeologic Cross-Section A-A'
sheet 2 of 2

Job Number	Drawing No.	Rev.
21372	FIGURE 7	



EXPLANATION

Particle Track in Shallow Aquifer

Particle Track in Deeper Aquifer

Production Well Location and Designation

FMC-1

0 2500 5000 feet

N

The Groundwater Model (Appendix K) was used to generate these particle tracks.

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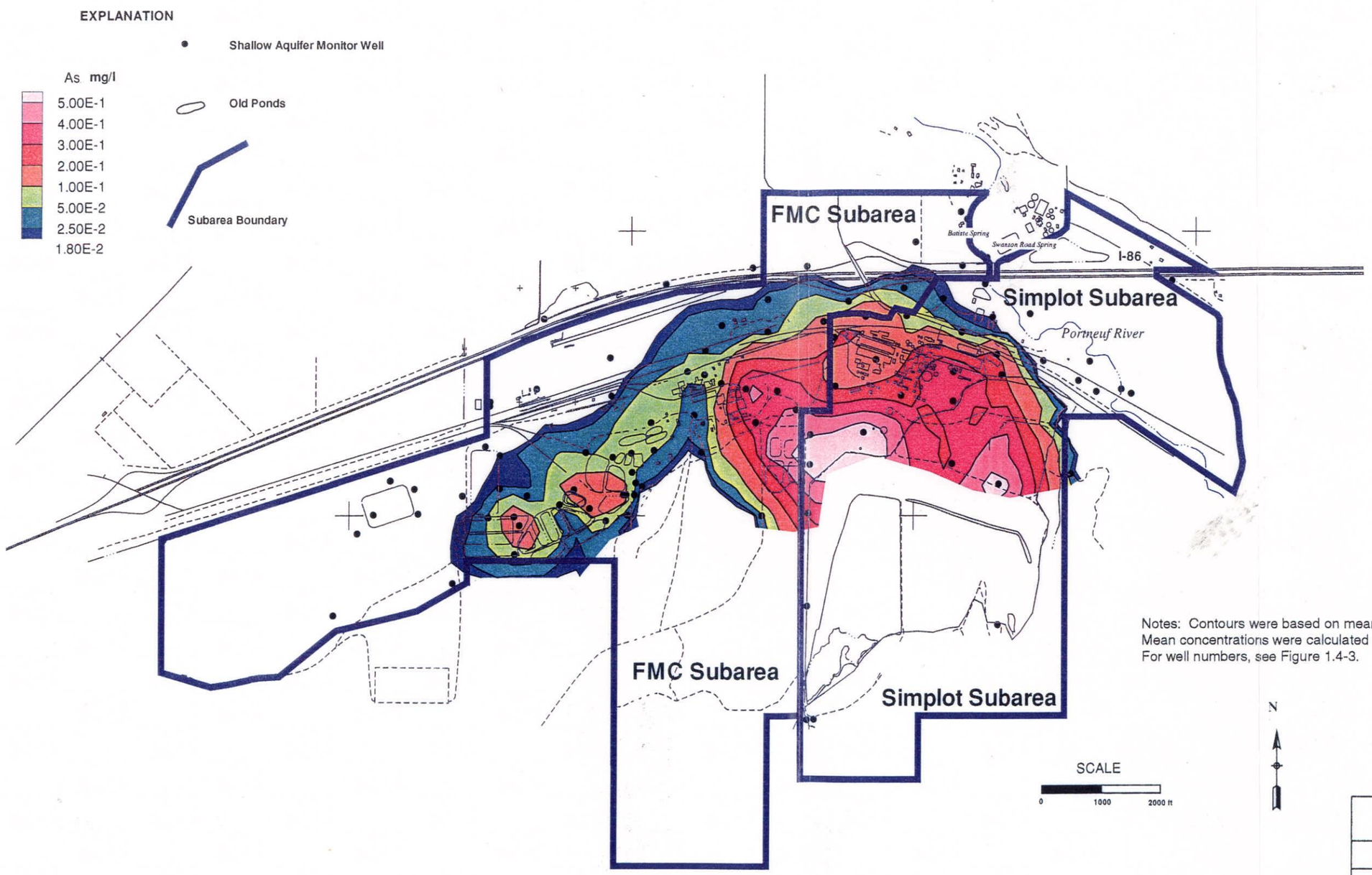
Effects of Plant Production Wells
On Deep Groundwater Flowpaths

Job Number	Drawing No.	Rev.
21372	Figure 10	



Notes: Contours were based on mean concentrations in shallow wells.
Mean concentrations were calculated using EPA RAGS methods.
For well numbers, see Figure 1.4-3.

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FEASIBILITY STUDY

ARSENIC CONCENTRATIONS IN SHALLOW AQUIFER

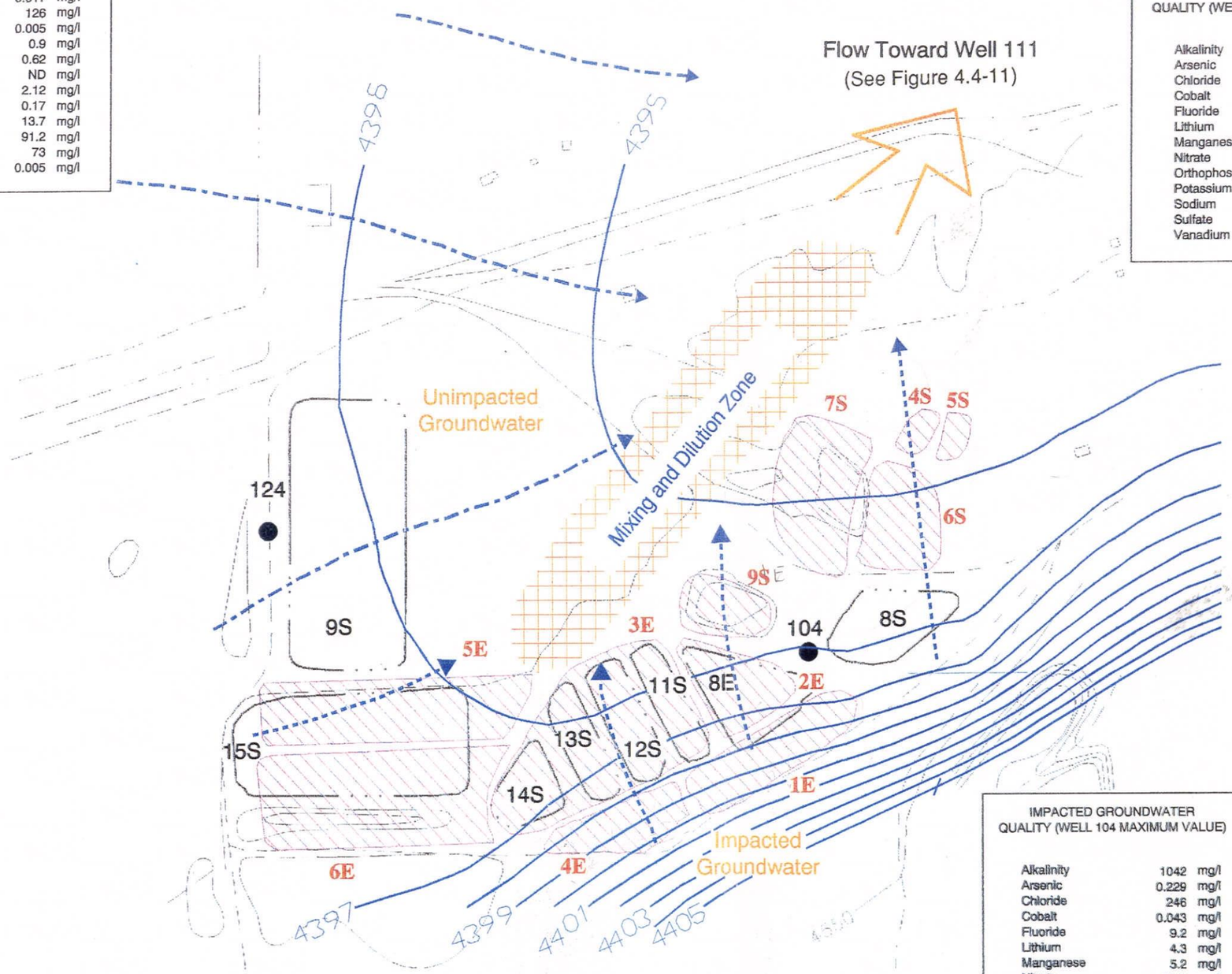
FIGURE 20

UNIMPACTED GROUNDWATER QUALITY (WELL 124 MAXIMUM VALUE)

Alkalinity	211	mg/l
Arsenic	0.017	mg/l
Chloride	126	mg/l
Cobalt	0.005	mg/l
Fluoride	0.9	mg/l
Lithium	0.62	mg/l
Manganese	ND	mg/l
Nitrate	2.12	mg/l
Orthophosphate	0.17	mg/l
Potassium	13.7	mg/l
Sodium	91.2	mg/l
Sulfate	73	mg/l
Vanadium	0.005	mg/l

MIXED GROUNDWATER QUALITY (WELL 111 MAXIMUM VALUE)

Alkalinity	363	mg/l
Arsenic	0.055	mg/l
Chloride	358	mg/l
Cobalt	0.021	mg/l
Fluoride	0.1	mg/l
Lithium	0.113	mg/l
Manganese	1.31	mg/l
Nitrate	19.8	mg/l
Orthophosphate	11.8	mg/l
Potassium	148	mg/l
Sodium	183	mg/l
Sulfate	214	mg/l
Vanadium	0.005	mg/l



Legend

- Well Location
- Flow Path
- Unimpacted Groundwater
- Impacted Groundwater
- Mixing and Dilution Zone
- 8S Existing Ponds
- 5E Former Ponds
- Water Level Contour

N

0 500 1000 FEET

0 100 200 300 METERS

IMPACTED GROUNDWATER QUALITY (WELL 104 MAXIMUM VALUE)

Alkalinity	1042	mg/l
Arsenic	0.229	mg/l
Chloride	246	mg/l
Cobalt	0.043	mg/l
Fluoride	9.2	mg/l
Lithium	4.3	mg/l
Manganese	5.2	mg/l
Nitrate	15.9	mg/l
Orthophosphate	21.3	mg/l
Potassium	526	mg/l
Sodium	532	mg/l
Sulfate	285	mg/l
Vanadium	0.020	mg/l

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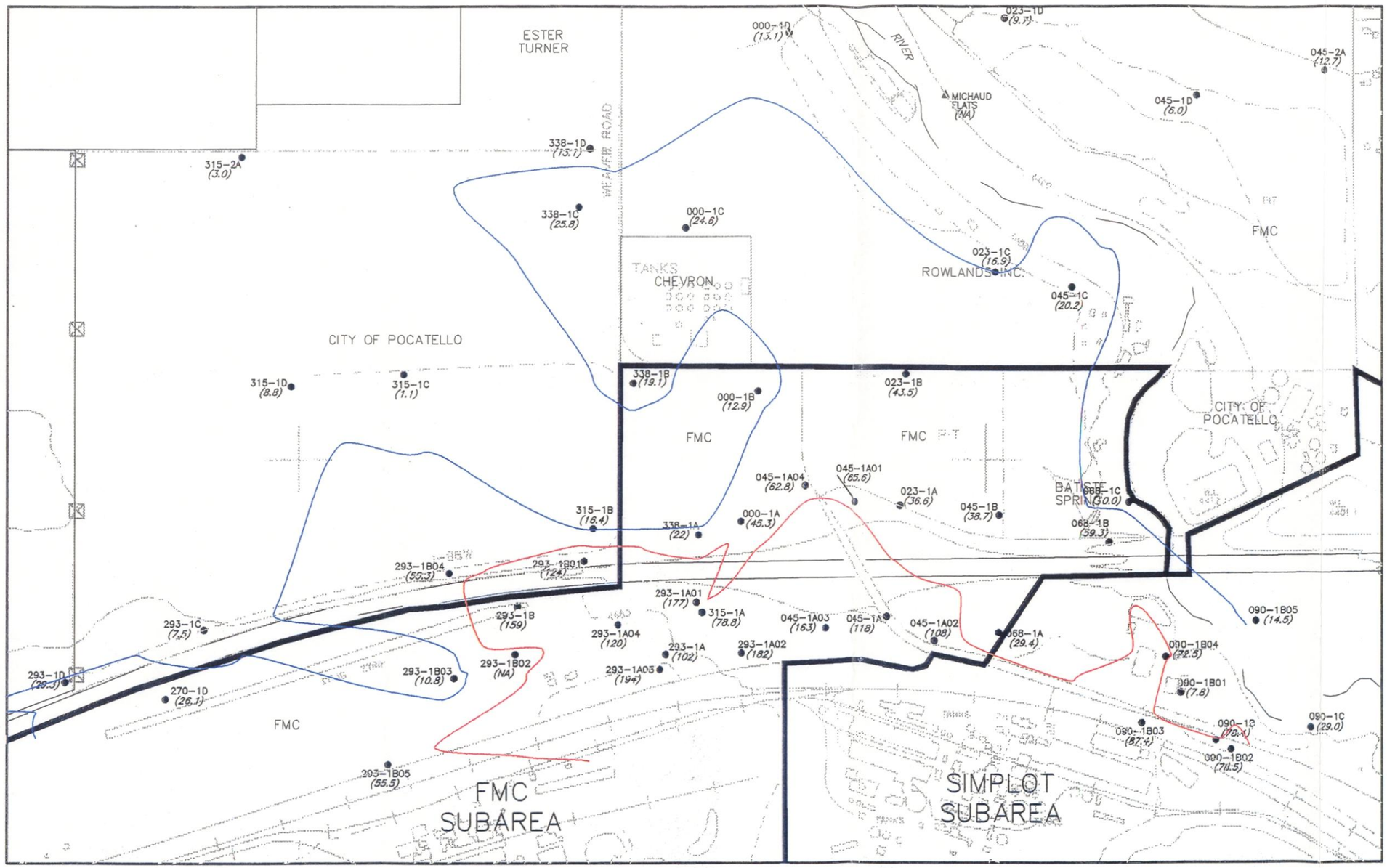
Groundwater Flow in the Southwestern Area of the FMC Facility

Job Number	Drawing No.	Rev
21372	FIGURE 21	

10/96 D:\5205\5205-96.DWG BY:SCG

XREF D:\5205-94.DWG



LEGEND:

113-2A ● SAMPLING LOCATIONS

(3.01) CADMIUM CONCENTRATION (mg/kg)

CT CASE (71 mg/kg)

RME CASE (16.9 mg/kg)

SCALE

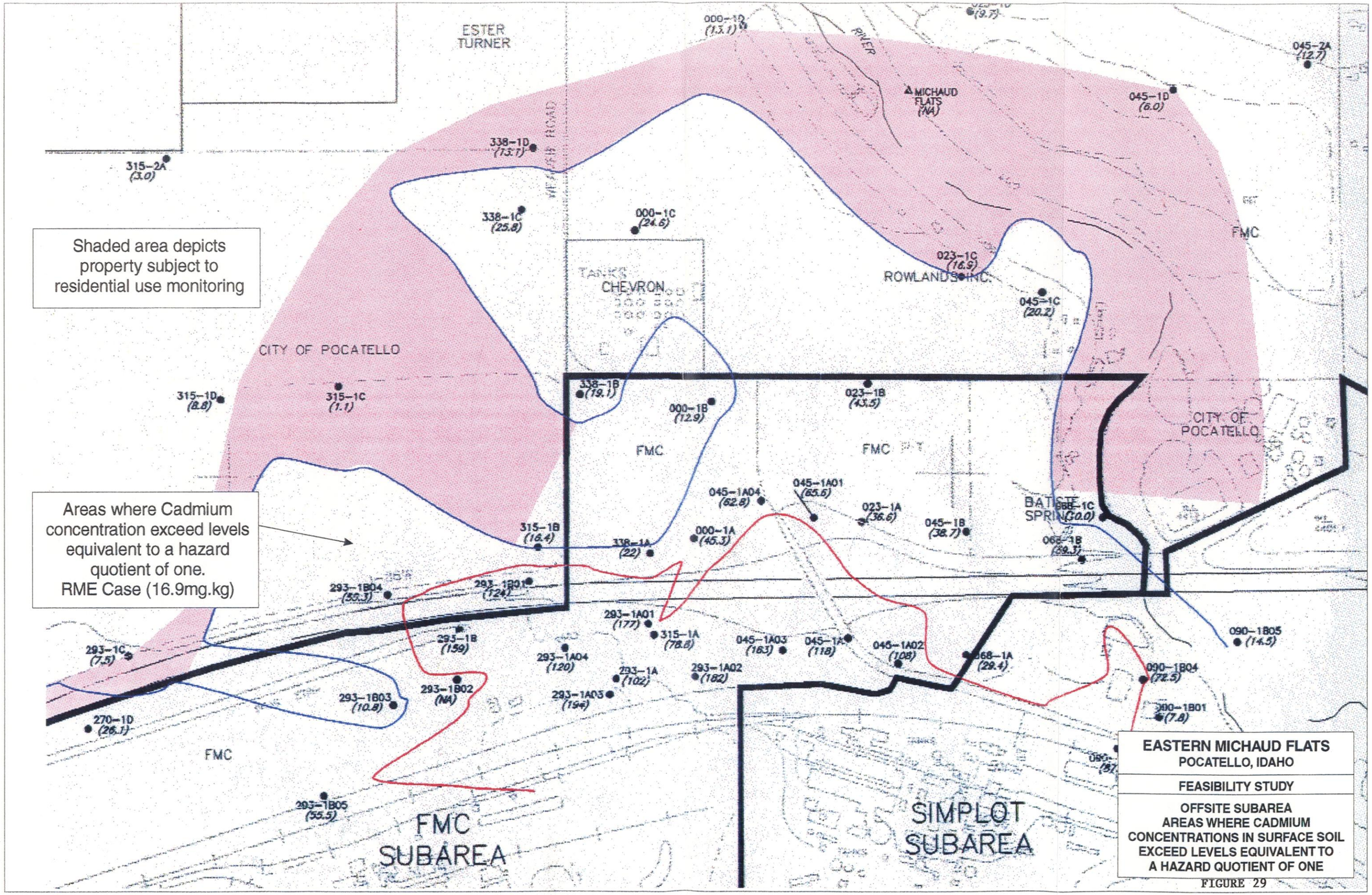
400 0 400 FEET

EASTERN MICHAUD FLATS
POCATELLO, IDAHO

FEASIBILITY STUDY

OFFSITE SUBAREA AREAS WHERE CADMIUM CONCENTRATIONS IN SURFACE SOIL EXCEED LEVELS EQUIVALENT TO A HAZARD QUOTIENT OF ONE

FIGURE 28



EASTERN MICHAUD FLATS
POCATELLO, IDAHO

FEASIBILITY STUDY

OFFSITE SUBAREA AREAS WHERE CADMIUM CONCENTRATIONS IN SURFACE SOIL EXCEED LEVELS EQUIVALENT TO A HAZARD QUOTIENT OF ONE

FIGURE 29