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**SUBAREA 5B ROUND 2 ADDENDUM  
TO THE FINAL FSP FOR SOIL SAMPLING  
SANTA SUSANA FIELD LABORATORY SITE  
AREA IV RADIOLOGICAL STUDY**

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Gregg Dempsey, Technical Advisor  
**DATE:** April 16, 2012  
**SUBJECT:** Subarea 5B Round 2 Addendum to the Final Field Sampling Plan for  
Soil Sampling

**CONTRACT NO:** EP-S7-05-05  
**TASK ORDER NO:** 0038

## **INTRODUCTION**

HydroGeoLogic, Inc. (HGL) has been tasked by the U.S. Environmental Protection Agency (USEPA) to conduct a radiological characterization study of Area IV and the Northern Buffer Zone at the Santa Susana Field Laboratory (SSFL) site in Ventura County, California. This work is being executed under USEPA Region 7 Architect and Engineering Services Contract EP-S7-05-05, Task Order 0038, Amendment 3. The technical lead on the project is USEPA Region 9.

This document supports the field implementation of the overall soil sampling program and is an addendum to the Final Field Sampling Plan (FSP) for Soil Sampling (HGL, 2012). A description of the overall project goals, data quality objectives, sampling strategy, laboratory analytical suites, sample depth interval selection, data quality control, and data evaluation are described in the FSP.

## **PURPOSE**

This addendum documents the rationale used to determine the location and depth of soil samples to be collected during Round 2 soil sampling within Subarea 5B. Sample locations are summarized in Table 1 (Attachment 1) and illustrated on the figures provided in Attachment 2. This addendum also documents the laboratory analyses that will be performed for each soil sample.

Specific sample locations presented herein were discussed during a technical review meeting held on February 22, 2012, with members of USEPA’s SSFL Technical Stakeholder group consisting of representatives of U.S. Department of Energy (DOE), the State of California Department of Toxic Substances Control (DTSC), The Boeing Company, USEPA, and the community members. Recommendations and action items identified at the technical review meeting, including those on the topic of “likely chemical remediation” (LCR) zones have been incorporated into this FSP Addendum. USEPA understands that soil may be excavated and removed from areas identified as LCR zones. Therefore, USEPA placed step-out samples around the zone's perimeter to better define the potential extent of contamination associated with such zones. In accordance with the USEPA’s role under the Administrative Order on Consent for Remedial Action (DTSC, 2010) agreement between DTSC and DOE for the SSFL site, and subject to additional external funding, USEPA will conduct verification soil sampling post Decontamination and Decommissioning activities to verify that site remediation goals have been achieved at all such remediation zones.

A total of 466 soil samples (188 surface, 249 subsurface, and 29 drainage) were collected during Round 1 sampling in Subarea 5B. Analysis of the 466 Round 1 soil samples identified 12 samples with radionuclide activities exceeding radiological trigger levels (RTL) developed for the Area IV Santa Susana Field Laboratory Radiological Study. The process used to derive the RTLs is presented in the Technical Memorandum, Radiological Trigger Levels (HGL, 2011a).

Activities exceeding the RTLs were identified in soil samples collected from Round 1 sample locations 316 and 332 located in the vicinity of former Building 4010 footprint, in the northeast corner of Subarea 5B. Additionally, ten soil samples collected within the 17<sup>th</sup> Street Drainage area, located in the southern portion of Subarea 5B, contained cesium-137 (Cs-137) at activities greater than the RTLs. Figure 1 illustrates the location of the samples collected during Round 1 and identifies the locations that had radionuclide activities that exceeded the RTLs. Figures 2 and 3 illustrate the location, analyte, activity, and RTL for each exceedance detected in Round 1 soil samples. Table 2 summarizes the analytes that exceeded the RTLs and the range of activity detected. Round 1 soil sample results will be presented in the Technical Memorandum Subarea 5B Round 1 Soil Sample Results which will be published in May 2012.

**Table 2**  
**Summary of Round 1 Analyte RTL Exceedances**

Area of RTL Exceedance	Analyte	Number of Exceedances	Range of Activity (pCi/g)	RTL (pCi/g)
Former 4010 Footprint	Eu-152	1	0.0780	0.0566
	Sr-90	1	0.563	0.485
17 <sup>th</sup> Street Drainage	Cs-137	10	0.213 - 0.911	0.207

**Notes:**

Cs - cesium  
pCi/g - picocuries per gram

Eu-152 - europium-152  
Sr-90 - strontium-90

## ROUND 2 PROPOSED SAMPLING LOCATIONS

Lines of evidence presented in the Subarea 5B FSP Addendum, Revision 1 (HGL, 2011b) for Round 1 such as gamma scanning survey results, aerial photographic interpretation, and historical process knowledge were evaluated to assist with the placement of Round 2 sampling locations. In addition to these lines of evidence, results from the Round 1 soil sampling event were also evaluated. A total of 40 soil samples (20 step-out locations) are proposed for Round 2 soil sampling. Table 1 (Attachment 1) details the location and the technical justification for each of these soil samples. Table 2 summarizes the number of samples proposed to be collected within each area where radionuclide activity was detected above the RTLs in Round 1 soil samples.

**Table 3**  
**Summary of Round 2 Sample Numbers by Area of Round 1 RTL Exceedances**

Area of Round 1 RTL Exceedances	Drainage	Surface	Subsurface	Total
Former Building 4010	0	6	6	12
17 <sup>th</sup> Street Drainage	0	14	14	28
<b>Total</b>	0	20	20	40

Figure 1 provides an overview map that shows the location of each Round 1 sample that had radionuclide activities that exceeded RTLs. The location and type (for example, surface, subsurface, and drainage) of each step-out sample are shown in Figures 2 and 3 in Attachment 2. Supporting figures showing aerial photographic features, gamma radiation surveys, geophysical surveys and results of past soil radiological investigations presented in the Round 1 Subarea 5B FSP Addendum are included in Attachment 3.

## SCHEDULE

Round 2 soil sampling within Subarea 5B will commence in March and be completed by May 2012. USEPA will provide periodic updates to SSFL Stakeholders regarding the status of the soil sampling program as well as the laboratory analysis and data interpretation.

## REFERENCES

- HydroGeoLogic, Inc., 2011a. Technical Memorandum, Radiological Trigger Levels, Santa Susana Field Laboratory, Area IV Radiological Study. December 16.
- HydroGeoLogic, Inc., 2011b. Subarea 5B FSP Addendum, Revision 1, Area IV Radiological Study, Santa Susana Field Laboratory Ventura County, California. March 2.

HydroGeoLogic, Inc., 2012. Final Field Sampling Plan for Soil Sampling, Area IV  
Radiological Study, Santa Susana Field Laboratory Ventura County, California.  
March.

State of California, Environmental Protection Agency, Department of Toxic Substances  
Control, 2010. Administrative Order On Consent For Remedial Action, Santa Susana  
Field Laboratory, Simi Hills, Ventura County, California. December.

## **LIST OF ATTACHMENTS**

Attachment 1	Table 1
Attachment 2	Figures 1- 3
Attachment 3	Support Figures

**ATTACHMENT 1**

Table 1      Summary of Soil Sample Locations, Subarea 5B, Round 2

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**Table 1**  
**Summary of Soil Sample Locations**  
**Subarea 5B, Round 2**

Sample Location	Sample Type	Location Description	Technical Justification	Analytical Suite
344	Surface	Northern portion of Subarea 5B, northwest corner of the former Building 4010 footprint. Approximately 10 feet north of Round 1 sample location 316.	Sr-90 at a concentration of 0.563 pCi/g reported in the surface soil sample collected from sample location 316.	Sr-90
344	Subsurface	Northern portion of Subarea 5B, northwest corner of the former Building 4010 footprint. Approximately 10 feet north of Round 1 sample location 316.	Sr-90 at a concentration of 0.563 pCi/g reported in the surface soil sample collected from sample location 316.	Sr-90
345	Surface	Northern portion of Subarea 5B, northwest corner of the former Building 4010 footprint. Approximately 10 feet west of Round 1 sample location 316.	Sr-90 at a concentration of 0.563 pCi/g reported in the surface soil sample collected from sample location 316.	Sr-90
345	Subsurface	Northern portion of Subarea 5B, northwest corner of the former Building 4010 footprint. Approximately 10 feet west of Round 1 sample location 316.	Sr-90 at a concentration of 0.563 pCi/g reported in the surface soil sample collected from sample location 316.	Sr-90
346	Surface	Northern portion of Subarea 5B, northwest corner of the former Building 4010 footprint. Approximately 10 feet southwest of Round 1 sample location 316.	Sr-90 at a concentration of 0.563 pCi/g reported in the surface soil sample collected from sample location 316.	Sr-90
346	Subsurface	Northern portion of Subarea 5B, northwest corner of the former Building 4010 footprint. Approximately 10 feet north of Round 1 sample location 316.	Sr-90 at a concentration of 0.563 pCi/g reported in the surface soil sample collected from sample location 316.	Sr-90
347	Surface	Northern portion of Subarea 5B, northeast of the footprint of former Building 4010. Approximately 10 feet north of Round 1 sampling location 332.	Eu-152 at a concentration of 0.078 pCi/g reported in the surface soil sample collected from sample location 332.	Gamma Spec
347	Subsurface	Northern portion of Subarea 5B, northeast of the footprint of former Building 4010. Approximately 10 feet north of Round 1 sampling location 332.	Eu-152 at a concentration of 0.078 pCi/g reported in the surface soil sample collected from sample location 332.	Gamma Spec
348	Surface	Northern portion of Subarea 5B, northeast of the footprint of former Building 4010. Approximately 10 feet east of Round 1 sampling location 332.	Eu-152 at a concentration of 0.078 pCi/g reported in the surface soil sample collected from sample location 332.	Gamma Spec
348	Subsurface	Northern portion of Subarea 5B, northeast of the footprint of former Building 4010. Approximately 10 feet east of Round 1 sampling location 332.	Eu-152 at a concentration of 0.078 pCi/g reported in the surface soil sample collected from sample location 332.	Gamma Spec
349	Surface	Northern portion of Subarea 5B, northeast of the footprint of former Building 4010. Approximately 10 feet southeast of Round 1 sampling location 332.	Eu-152 at a concentration of 0.078 pCi/g reported in the surface soil sample collected from sample location 332.	Gamma Spec
349	Subsurface	Northern portion of Subarea 5B, northeast of the footprint of former Building 4010. Approximately 10 feet southeast of Round 1 sampling location 332.	Eu-152 at a concentration of 0.078 pCi/g reported in the surface soil sample collected from sample location 332.	Gamma Spec
350	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 50 feet west of Round 1 sample location 212.	Cs-137 concentration of 0.252 pCi/g reported in the surface soil sample collected from sample location 212.	Gamma Spec
350	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 50 feet west of Round 1 sample location 212.	Cs-137 concentration of 0.252 pCi/g reported in the surface soil sample collected from sample location 212.	Gamma Spec
351	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 60 feet northeast of Round 1 sample location 212.	Cs-137 concentration of 0.252 pCi/g reported in the surface soil sample collected from sample location 212.	Gamma Spec
351	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 60 feet northeast of Round 1 sample location 212.	Cs-137 concentration of 0.252 pCi/g reported in the surface soil sample collected from sample location 212.	Gamma Spec
352	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 50 feet northeast of Round 1 sample location 215.	Cs-137 concentration of 0.522 pCi/g reported in the surface soil sample collected from sample location 214.	Gamma Spec
352	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 50 feet northeast of Round 1 sample location 215.	Cs-137 concentration of 0.522 pCi/g reported in the surface soil sample collected from sample location 214.	Gamma Spec
353	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 40 feet west of Round 1 sample location 214.	Cs-137 concentration of 0.522 pCi/g reported in the surface soil sample collected from sample location 214.	Gamma Spec

**Table 1**  
**Summary of Soil Sample Locations**  
**Subarea 5B, Round 2**

Sample Location	Sample Type	Location Description	Technical Justification	Analytical Suite
353	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 40 feet west of Round 1 sample location 214.	Cs-137 concentration of 0.522 pCi/g reported in the surface soil sample collected from sample location 214.	Gamma Spec
354	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 50 feet east of Round 1 sample location 215.	Cs-137 concentration of 0.522 pCi/g reported in the surface soil sample collected from sample location 214.	Gamma Spec
354	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 50 feet east of Round 1 sample location 215.	Cs-137 concentration of 0.522 pCi/g reported in the surface soil sample collected from sample location 214.	Gamma Spec
355	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 60 feet northeast of Round 1 sample location 219.	Cs-137 concentration of 0.444 pCi/g reported in the surface soil sample collected from sample location 219.	Gamma Spec
355	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 60 feet northeast of Round 1 sample location 219.	Cs-137 concentration of 0.444 pCi/g reported in the surface soil sample collected from sample location 219.	Gamma Spec
356	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 70 feet east of Round 1 sample location 219.	Cs-137 concentration of 0.444 pCi/g reported in the surface soil sample collected from sample location 219.	Gamma Spec
356	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 70 feet east of Round 1 sample location 219.	Cs-137 concentration of 0.444 pCi/g reported in the surface soil sample collected from sample location 219.	Gamma Spec
357	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 80 feet north of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
357	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 80 feet north of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
358	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 60 feet east of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
358	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 60 feet east of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
359	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 40 feet southeast of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
359	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 40 feet southeast of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
360	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 60 feet south of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
360	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 60 feet south of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
361	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 100 feet south of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec
361	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 100 feet south of Round 1 sample location 211.	Cs-137 concentration of 0.213 pCi/g reported in the surface soil sample collected from sample location 211.	Gamma Spec

**Table 1**  
**Summary of Soil Sample Locations**  
**Subarea 5B, Round 2**

Sample Location	Sample Type	Location Description	Technical Justification	Analytical Suite
362	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 180 feet south of Round 1 sample location 211.	Step-out location to characterize the surface soil in the vicinity along the southern boundary of the 17th Street Drainage LCR zone. Cs-137 will be targeted using gamma spec analysis because no other analyte was detected above the RTL in samples collected from the LCR zone.	Gamma Spec
362	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 180 feet south of Round 1 sample location 211.	Step-out location to characterize the surface soil in the vicinity along the southern boundary of the 17th Street Drainage LCR zone. Cs-137 will be targeted using gamma spec analysis because no other analyte was detected above the RTL in samples collected from the LCR zone.	Gamma Spec
363	Surface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 120 feet south of Round 1 sample location 225.	Step-out location to characterize the surface soil in the vicinity along the southern boundary of the 17th Street Drainage LCR zone. Cs-137 will be targeted using gamma spec analysis because no other analyte was detected above the RTL in samples collected from the LCR zone.	Gamma Spec
363	Subsurface	Southern portion of Subarea 5B, south of G Street, within the 17th Street Drainage area. Approximately 120 feet south of Round 1 sample location 225.	Step-out location to characterize the surface soil in the vicinity along the southern boundary of the 17th Street Drainage LCR zone. Cs-137 will be targeted using gamma spec analysis because no other analyte was detected above the RTL in samples collected from the LCR zone.	Gamma Spec

**Notes:**

Cs-137 - cesium-137

Eu-152 - europium-152

LCR - Likely Chemical Remediation

pCi/g - picocuries per gram

Sr-90 - strontium-90

## **ATTACHMENT 2**

- Figure 1 Subarea 5B Round 1 Sample Locations
- Figure 2 Subarea 5B Round 2 Step-out Sample Locations Former Building 4010
- Figure 3 Subarea 5B Round 2 Step-out Sample Locations 17<sup>th</sup> Street Drainage

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**Figure 1**  
**Subarea 5B Round 1 Samples Locations**  
**Santa Susana Field Laboratory**

U.S. EPA Region 9



**Legend**

Soil Sample Locations

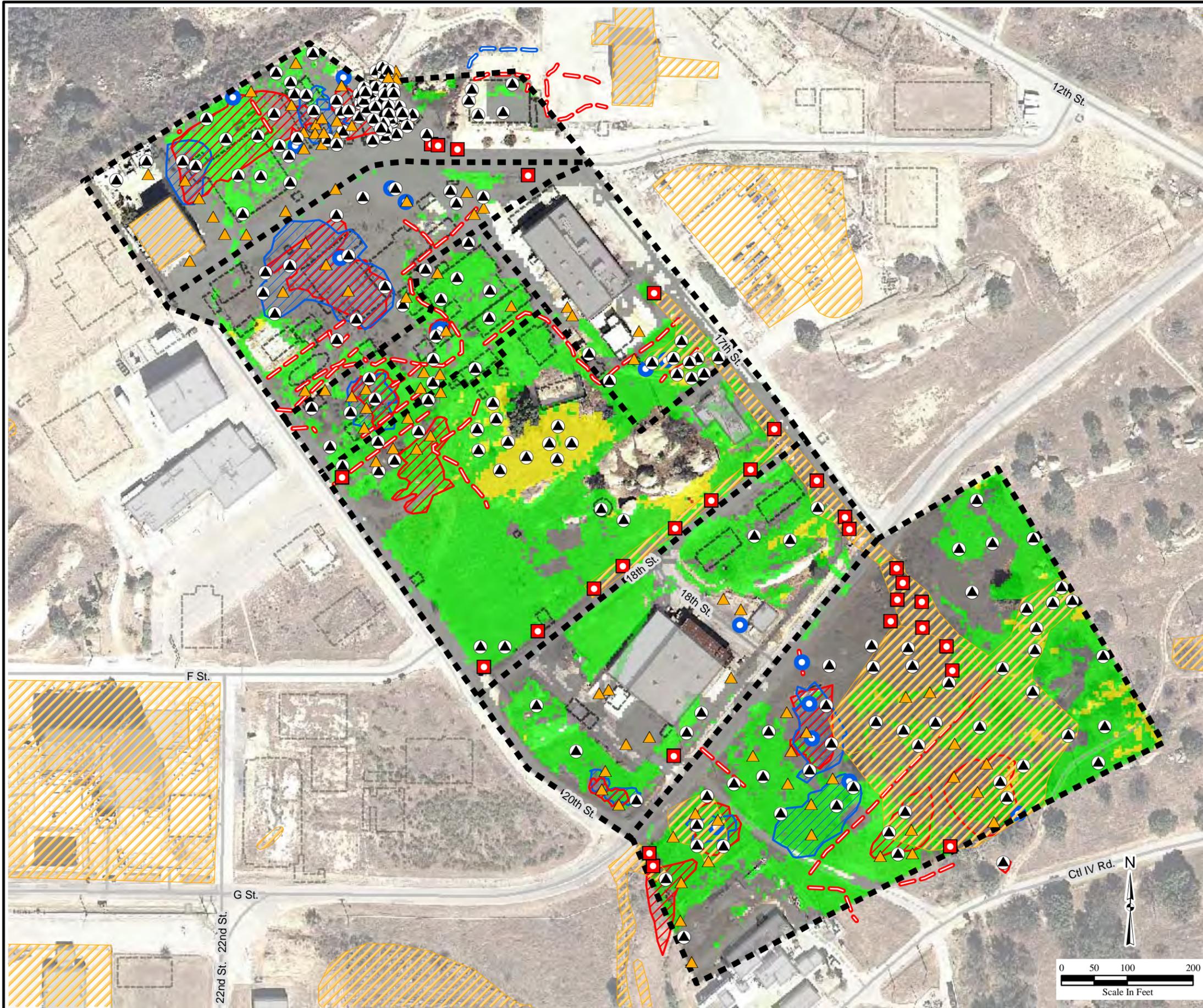
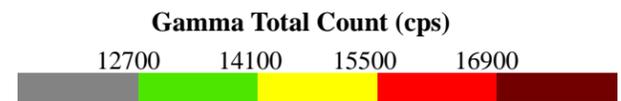
- Drainage
- StormSewer
- ▲ Subsurface
- ▲ Surface Subsurface

5B Groups

- 5B Groups
- Likely Remediation Zones

Geophysical Anomalies

- Terrain Conductivity
- Magnetometer
- Cut and Fill Boundaries
- Magnetometer Anomaly Linear
- Terrain Conductivity Anomaly Linear
- Point Source Magnetometer Anomaly
- Point Source Terrain Conductivity Anomaly



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Source:HGL 2010, CIRGIS 2007



**Figure 2**  
**Subarea 5B Round 2 Step-out**  
**Sample Locations**  
**Former Building 4010**  
**Santa Susana Field Laboratory**

**U.S. EPA Region 9**



**Legend**

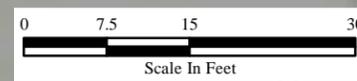
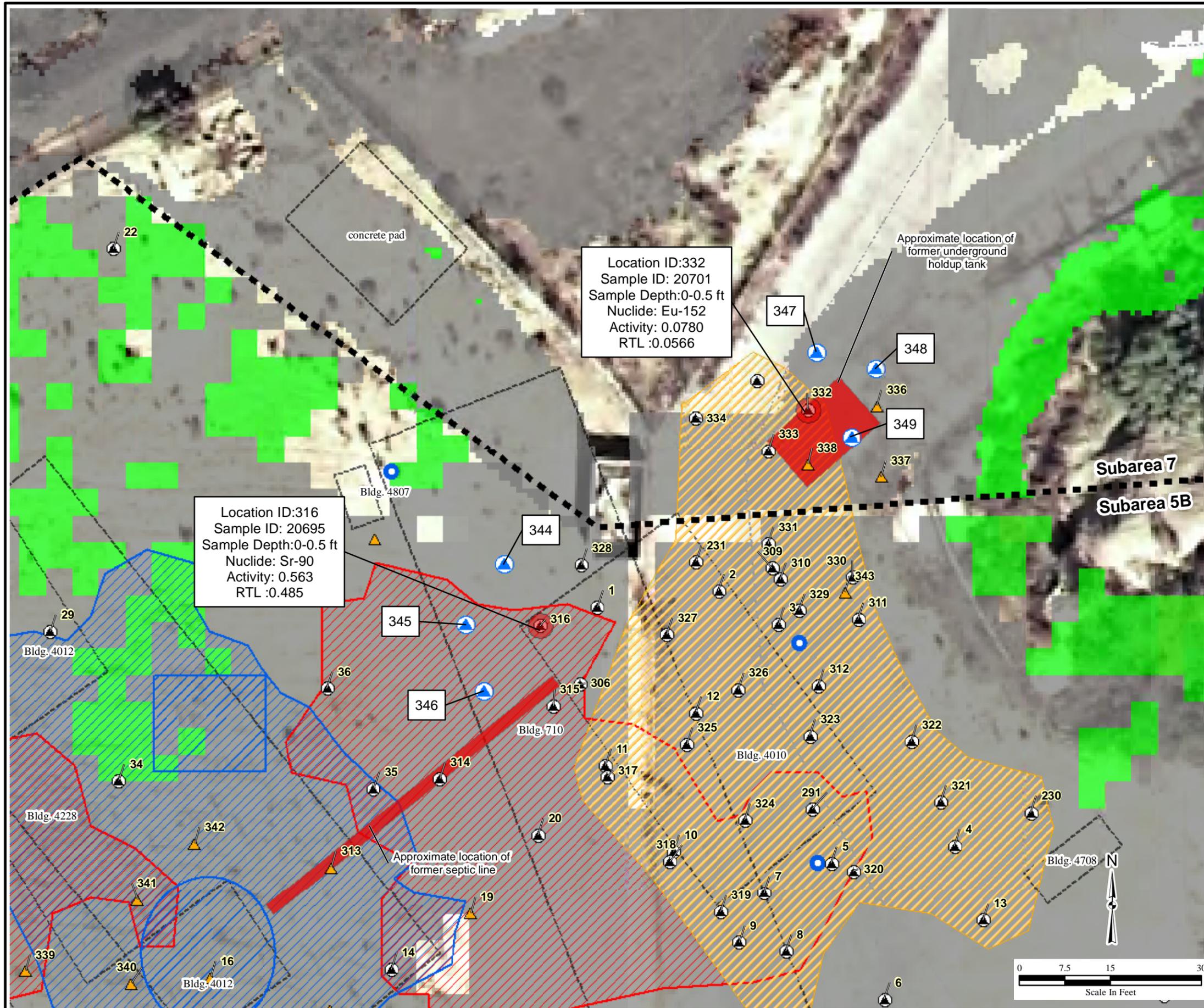
- Exceed RTLs
- ▲ Potential Round 2 Step-out Locations (Surface/ Subsurface)
- ▲ Round 1 Subsurface
- ▲ Round 1 Surface Subsurface
- Likely Remediation Zones
- Demolished Buildings
- Subarea Boundary
- Terrain Conductivity
- Magnetometer
- Cut and Fill Boundaries
- Point Source Magnetometer Anomaly

**Gamma Total Count (standard deviations)**



**Note:**  
 RTL - Radiological Trigger Level

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 Source:HGL 2010, CIRGIS 2007



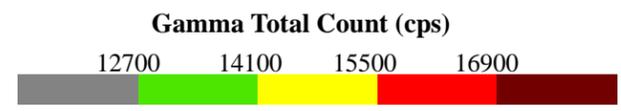
**Figure 3**  
**Subarea 5B Round 2 Step-out**  
**Sample Locations**  
**17th Street Drainage**  
**Santa Susana Field Laboratory**

**U.S. EPA Region 9**



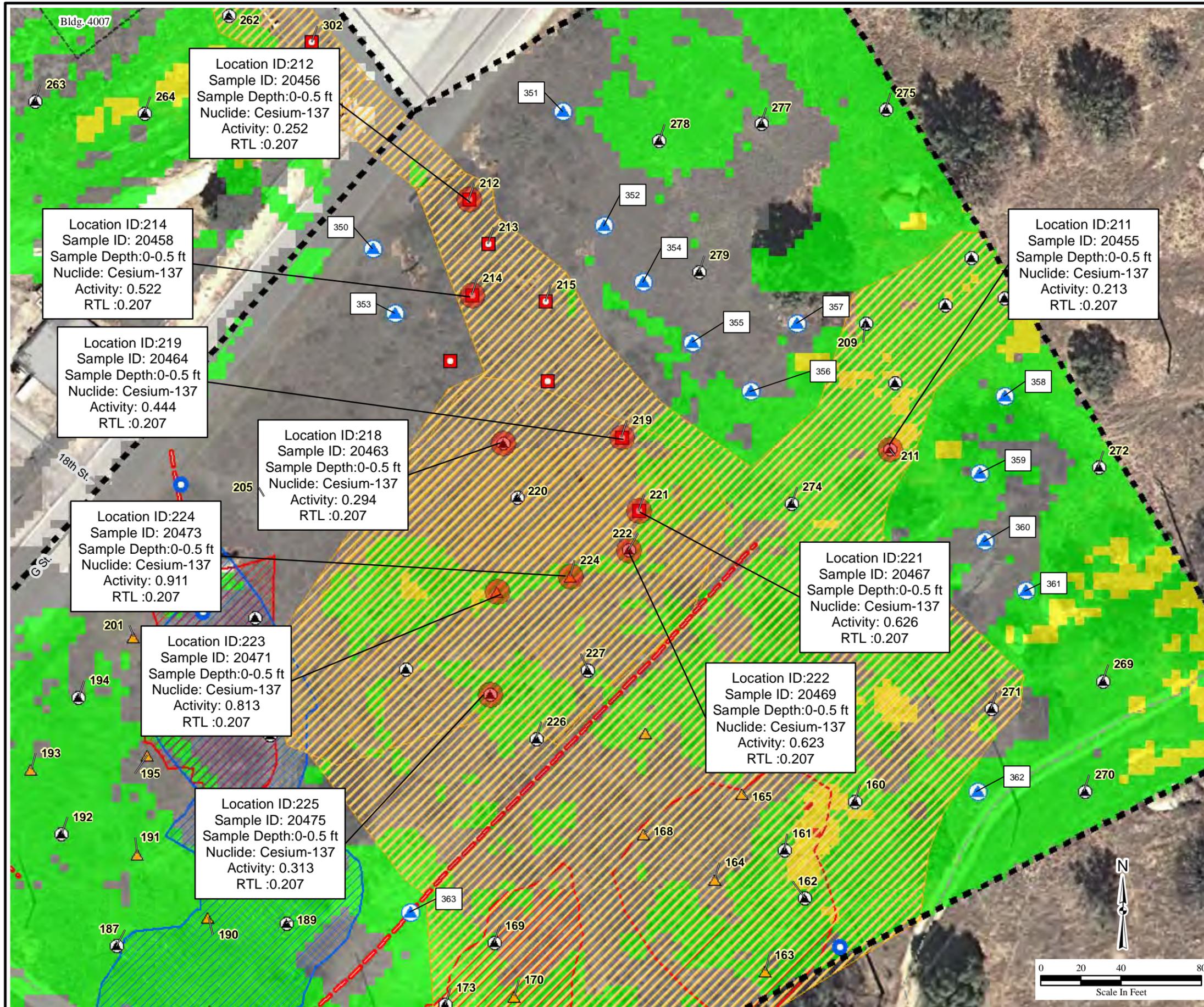
**Legend**

- Exceed RTLs
  - ▲ Potential Round 2 Step-out Locations (Surface/ Subsurface)
  - Drainage
  - ▲ Round 1 Subsurface
  - ▲ Round 1 Surface Subsurface
  - Likely Remediation Zones
- Geophysical Anomalies**
- Terrain Conductivity
  - Magnetometer
  - Cut and Fill Boundaries
  - Terrain Conductivity Anomaly Linear
  - Point Source Magnetometer Anomaly

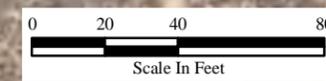


**Notes:**

RTL - Radiological Trigger Level  
cps - Counts per second



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(Fig2)5B\_Round2\_17thStDrainage.mxd  
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Source:HGL 2010, CIRGIS 2007



### **ATTACHMENT 3**

Gamma Scanning, Subarea 5B  
Geophysical Anomaly, Subarea 5B  
Subarea HSA 5B (Aerial Photo Features)  
Past Radiological Soil Investigation, Subarea 5B

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**Legend**

--- HSA Sub-Area 5B Boundary

**Centerline Roads**  
 — Primary Roads  
 — Secondary Roads  
 - - - Tertiary Roads

**Buildings**  
 □ Demolished  
 ■ Existing

**Geophysical Anomalies**

▨ Terrain Conductivity  
 ▨ Magnetometer  
 — Geophysical Anomaly Linear  
 ● Buried Metals

**Surface Water**

— Intermittent Stream  
 — Permanent Stream  
 — Surface Water  
 — Lined Channel

**Surface Water Flow**

→ Surface Water Flow  
 (From Boeing Database, 2008)

**Surface Features**

— Channel  
 — Drain  
 — Drain  
 - - - Drainage Divide  
 - - - Gutter  
 — Tank  
 — Tank  
 — Vault  
 — Well

**Utilities**

— Gas  
 — Storm Drain  
 — Sanitary Sewer  
 — Water  
 - - - Water (Removed)  
 - - - Water (Removed)  
 — Pipes (Unknown Type)  
 - - - Pipes (Unknown Type)

Historical Site Assessment  
 Revised Draft Technical Memorandum - HSA-5B

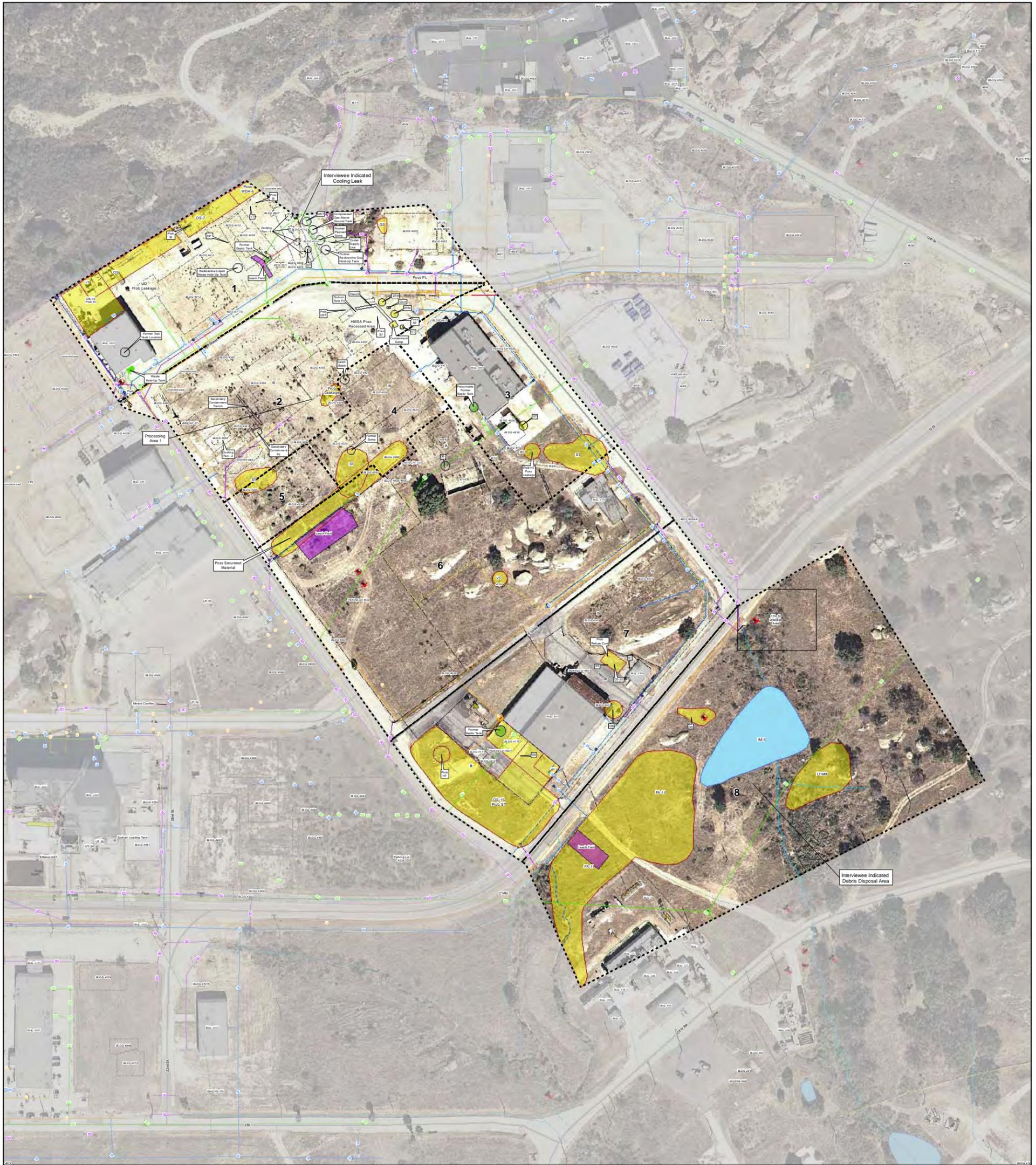
**Geophysical Anomaly  
 Subarea 5B  
 Santa Susana Field Laboratory**

**U.S. EPA Region 9**



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 Project: EP9038  
 Editor: P. Blöck 20101104  
 Source: Boeing Company, 2008; CIRGIS, 2007





**Legend**

- Subarea SB Groups
- Centerline Roads**
  - Primary Roads
  - Secondary Roads
  - Tertiary Roads
- Buildings**
  - Demolished
  - Existing
  - Parking Lots
- Surface Water**
  - Intermittent Stream
  - Permanent Stream
  - Surface Water
  - Lined Channel

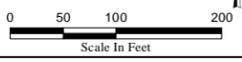
- Tanks**
  - Above ground Storage Tank
  - Underground Storage Tank
  - Unknown Tank Type
  - French Drain Holding Tank
  - Sump
  - Dry Well
  - Tank Footprint
  - Drain
  - Well
  - French Drain
  - Drainage
  - Leach Field
  - Septic System

- Aerial Photography Data**
  - Aerial Photography Features
  - Septic Tank
  - Leach Field
  - Cooling Fan
  - Other
- Utilities**
  - Gas
  - Storm Drain
  - Sanitary Sewer
  - Sanitary Waste
  - Water
  - Water (Removed)

- Surface Features**
  - Channel
  - Drain
  - Drain
  - Drainage Divide
  - Gutter
  - Tank
  - Tank
  - Vault
  - Well

- Aerial Photography Descriptors**

Type	Description
B	Building
CONT	Container
CR	Crates
DE	Debris
DG	Disturbed Ground
DTM	Dark Tone Material
EX	Excavation
FA	Fill Area
GS	Ground Scar
HT	Horizontal Tank
IM	Impoundment
LTMM	Light Toned Mounded Material
MTMM	Medium Toned Mounded Material
OS	Open Storage
PA	Processing Area
PL	Pipeline
POSS	Possible
PROB	Probable
SS	Smoke Stack
ST	Stain
S-T	Storage Tank
UO	Unidentified Object
VT	Vertical Tank
WDA	Waste Disposal Area



Historical Site Assessment  
Draft Technical Memorandum - HSA-5B

**Plate 1**  
**Subarea HSA-5B**  
**Santa Susana Field Laboratory**

U.S. EPA Region 9



Map Source: HGL  
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