

WASTE CHARACTERIZATION: IN-SITU SOIL LOCATED AT
ISRA HAPPY VALLEY PLANNED EXCAVATION HVS-2A

Introduction

This report presents supporting detailed information for the July 16, 2009 in-situ characterization of prospective soil wastes from planned ISRA excavations at Happy Valley.

Background

In-situ characterization of soil destined to be excavated from Happy Valley in accordance with the ISRA Workplan was performed. A step-by-step approach was followed to accomplish characterization of the soil prior to excavation. The first step was to review available information regarding historical area usage and existing analytical data from past soil sampling in the Happy Valley (HV). The objective was to identify all substances that could have an impact on the determination of whether soil in each planned excavation footprint was hazardous or not.

The next step was to develop a random sampling plan for each of the planned excavation footprints to determine whether any of the identified substances are present at concentrations that require further investigation. An evaluation of the results of the initial random sampling was performed to determine whether the data was adequate for waste characterization based on the exhibited variance of any detected analytes and the relative difference between detected concentrations and regulatory thresholds. The soil was characterized non-hazardous when analyte concentrations among the samples exhibited a reasonably small variance and there was satisfactory margin between the mean of the samples and applicable regulatory thresholds. Otherwise, additional samples were collected and subjected to analysis or the soil was characterized as hazardous.

The review of historical information and existing analyt

ND to 1.5 ppm. The CA TTLC for Selenium is 100 ppm and the CA STLC 10 X threshold is 10 ppm. All other regulated metals are well below regul

INTERIM SOURCE REMOVAL ACTION (ISRA) - OUTFALL 008

**HVS-2A WASTE CHARACTERIZATION RESULTS
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY**

| | | | | | | | | |
|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Object Name: | ISWC0028 | ISWC0077 | ISWC0078 | ISWC0079 | ISWC0080 | ISWC0081 | ISWC0082 | ISWC0083 |
| Sample Name: | ISWC0028S001 | ISWC0077S001 | ISWC0078S001 | ISWC0079S001 | ISWC0080S001 | ISWC0081S001 | ISWC0082S001 | ISWC0083S001 |
| Collection Date: | 7/1/2009 | 7/29/2009 | 7/29/2009 | 7/29/2009 | 7/29/2009 | 7/29/2009 | 7/30/2009 | 7/30/2009 |
| Sample Depth (feet): | 0.4 - 0.9 | 0.3 - 0.7 | 1.0 - 1.5 | 0.7 - 1.3 | 0.3 - 0.7 | 1.5 - 2.0 | 1.0 - 1.5 | 1.0 - 1.5 |

| | | | | |
|----------------|--------------|--------------|---|--------------------------------------|
| ANALYTE | UNITS | TTLIC | WET Leachate Testing Trigger^a | TCLP Leachate Testing |
|----------------|--------------|--------------|---|--------------------------------------|