

**Attachment I**

**Historic Fill Technical Memorandum dated July 20,  
2012, prepared by AECOM**

## Memorandum

To	Mark Terril, PPG	Page	1
CC	Scott Mikaelian (AECOM), Bill Spronz (AECOM), Doug Neumann (Dresdner Robin); Brian McPeak (Chromium Cleanup Partnership)		
Subject	Site 108 – Historic Fill Technical Memo		
From	Al LoPilato, AECOM		
Date	July 20, 2012		

Mark –

As you are aware, on May 18, 2012, the NJDEP responded to the Site 108 Remedial Investigation Report (RIR) (April 17, 2012) prepared by Dresdner Robin with a number of comments, including a specific comment indicating that additional investigation is required to complete delineation of Chromate Chemical Production Waste (CCPW) and CCPW-related metals to both the Residential Direct Contact Soil Remediation Standards (RDCSRS) and Impact to Groundwater Soil Remediation Standards (IGWSRS).

In response to this comment, AECOM has conducted a review of recent changes to NJDEP's regulations and guidance, and prepared the following technical analysis which, as presented below, **concludes that the residual metals contamination at Site 108 is associated with the site-wide presence of historic fill material (as defined by NJDEP), and is not associated with the presence of CCPW.**

AECOM proposes to present our position to the NJDEP and Weston via conference call, using the talking points as a guide:

### **Presence of CCPW/Chrome/Hex Chrome**

- Cr+6 exceedences at Site 108 are limited to one boring location (108\_M018) at a depth of 3.5-4.0 feet;
- Visible CCPW was observed in same boring (108\_M018) at a depth of 0.5-3.0 feet. This was the only boring location on-site where CCPW was observed;
- NJDEP has approved this small, delineated area of CCPW impact at the NW corner of the site near 108\_M018 to be "carved-out" and independently remediated as a "stand alone" AOC part of Site 107 RA;

### **Presence of CCPW Related Metals**

- Other "CCPW-related" metals observed above RDCSRS on-site include Vanadium and Antimony; however, based on a review of soil boring logs these metals are **not** "co-located"

**with CCPW, chrome or hex chrome, and boring logs indicated the presence of historic fill (e.g. brick, glass, wood, coal ash, concrete) at the depths corresponding to the exceedences;**

- Of a total of 278 soil samples were collected during the Remedial Investigation; only four soil samples exceeded the RDCSRS for Vanadium. Only one soil sample exceeded the RDCSRS for Antimony;
- No concentrations of related metals were observed above NRDCSRS;
- Default IGWSSL exceedences were observed for Nickel and Antimony; however, these metals were not **“co-located” with CCPW, chrome or hex chrome, and boring logs indicated the presence of historic fill (cinders, ash, brick, glass, wood, concrete) at the depth corresponding to the exceedence;**
- The concentrations of Nickel and Antimony observed are relatively low, and within or below the typical range of concentrations associated with historic fill material;

### **Evidence of Historic Fill on-Site (Site-wide)**

Based on the visual observation of historic fill material at RDCSRS and IGWSSL exceedence locations, the lack of CCPW at these locations, the lack of chrome and hex chrome exceedences at these locations, and the fact that NJDEP has mapped the entire property within a known and recognized regional area of historic fill (*Historic Fill of the Jersey City Quadrangle, 2004*), it is apparent that the RDCSRS exceedences for Vanadium and Antimony, and the IGWSSL exceedences for Antimony and Nickel, are associated with the prior placement of historic fill material to raise the topographic elevation of the site, and not associated with the presence of CCPW.

### **Conclusions**

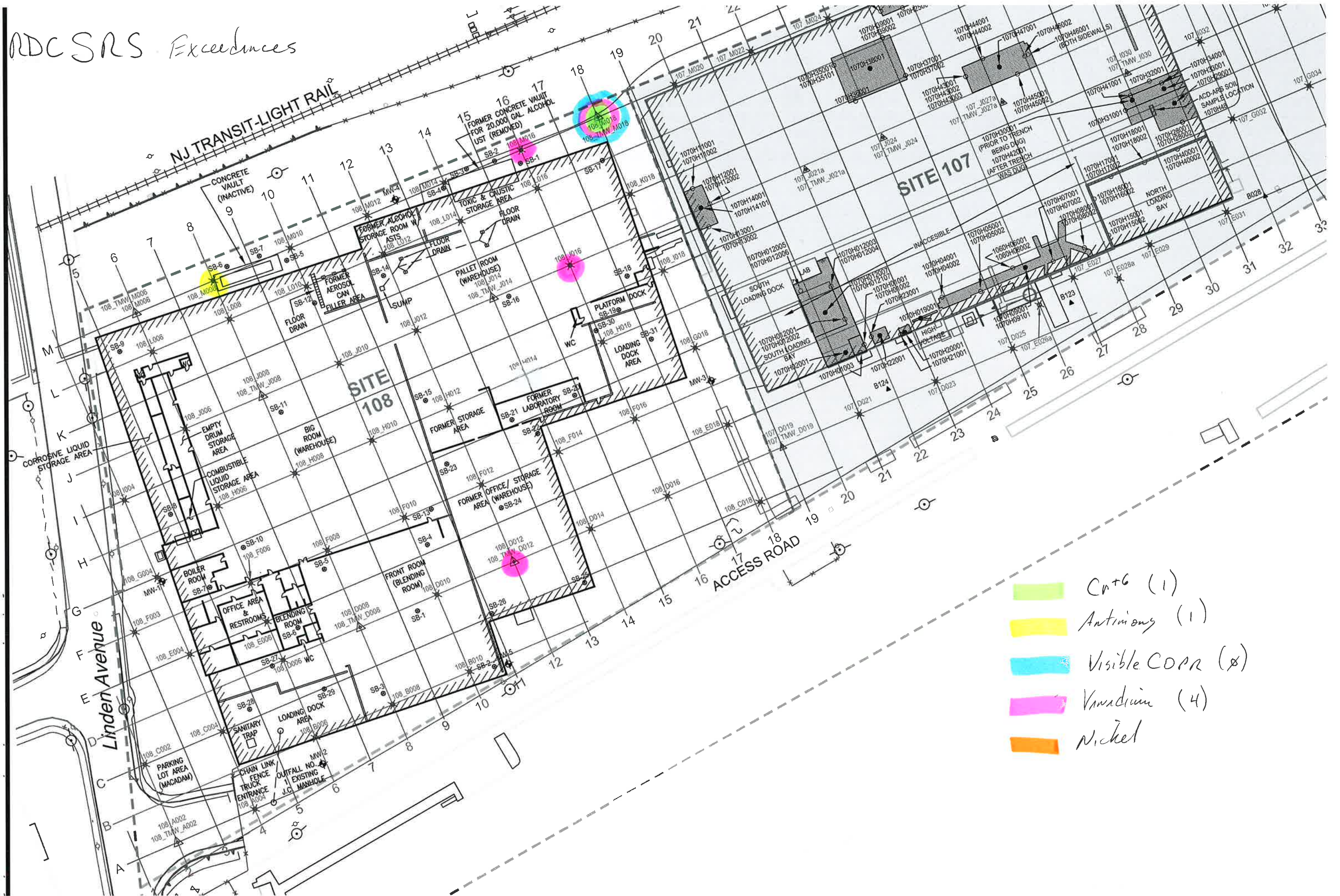
Based on these findings, and pursuant to NJAC 7:26E and current NJDEP Guidance, the presence of historic fill material has been confirmed on-site, is a separate Area of Concern (AOC) associated with a recognized regional historic fill issue, and should be addressed as a stand-alone AOC separate from the small area of CCPW located at the northwest corner of the Site.

### **Remedial Action Approach**

Based on current NJDEP regulations and guidance related to the investigation and remediation of historic fill material, AECOM believes no additional delineation of historic fill material or related contaminants (Antimony, Nickel, Vanadium) is necessary, either on or off-site.

PPG proposes that any future “presumptive” remedial action associated with the presence of historic fill (administrative/engineering controls) is the responsibility of the current or future property owner. In addition, future presumptive groundwater remediation activities (CEA/Long Term Monitoring) associated with the historic fill related non-CCPW impacts is also the responsibility of the property owner.

# RDC SRS Exceedances



- Cr+6 (1)
- Antimony (1)
- Visible COPR (8)
- Vanadium (4)
- Nickel

NRTC SRS Exceedances

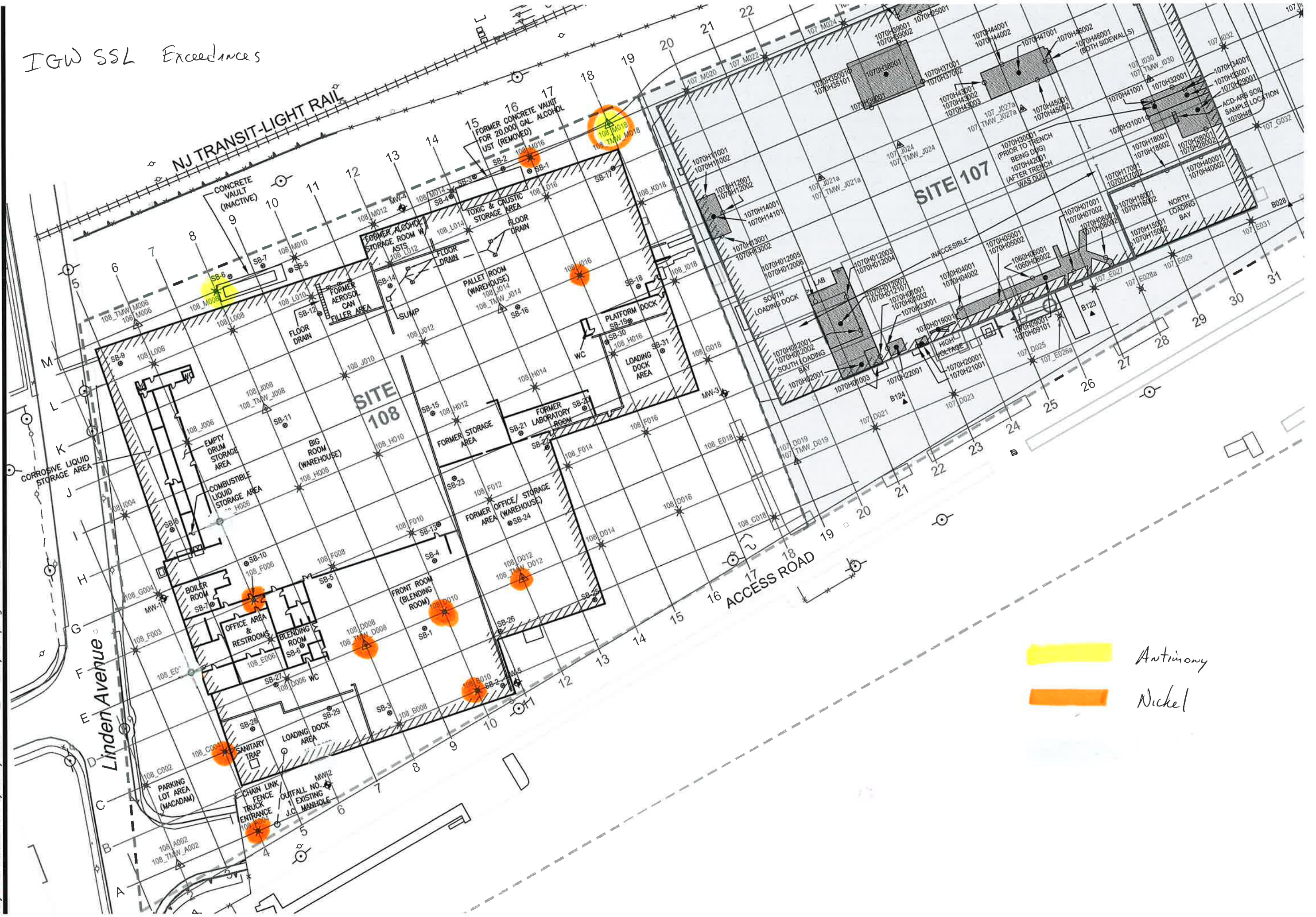
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- Cr+6 (1)
- Antimony (0)
- Visible COPR (0)
- Vanadium (0)
- Nickel (0)

IGW SSL Exceedances

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Antimony  
Nickel