

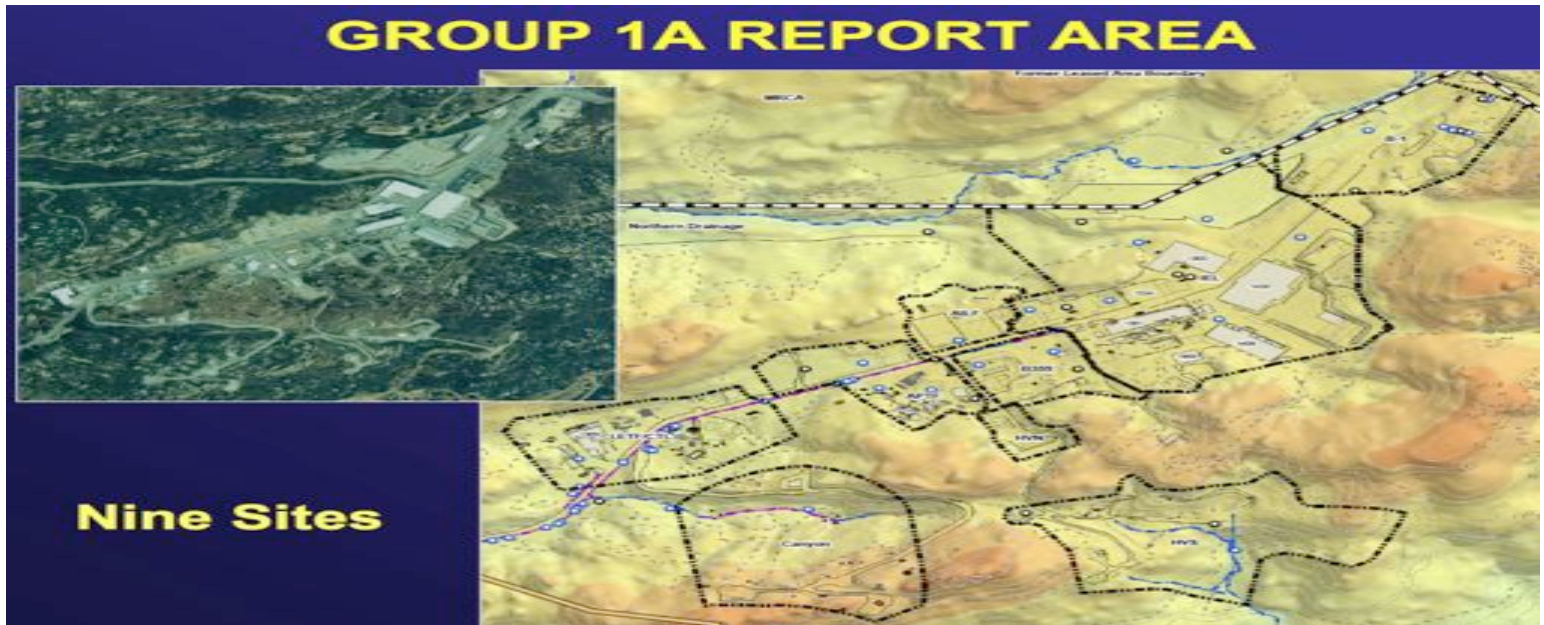


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(Via U.S. Mail and E-mail)

8/31/2009

cc. Tom Gallecher - The Boeing Co., Secretary Linda Adams - Cal. EPA, Maziar Movassaghi - DTSC, Rick Brausch - DTSC, Christina Walsh Cleanuprocketdyne dot org, Shelly Backlar - Friends of the Los Angeles River, Ventura County Supervisor Linda Parks, Phyllis Winger for Los Angeles City Council District 12 Councilmember Greig Smith, Louise Rishoff - Assemblymember Julia Brownley, Aron Miller for State Senator Fran Pavley and Millie Jones for Los Angeles County Supervisor Michael D. Antonovich.

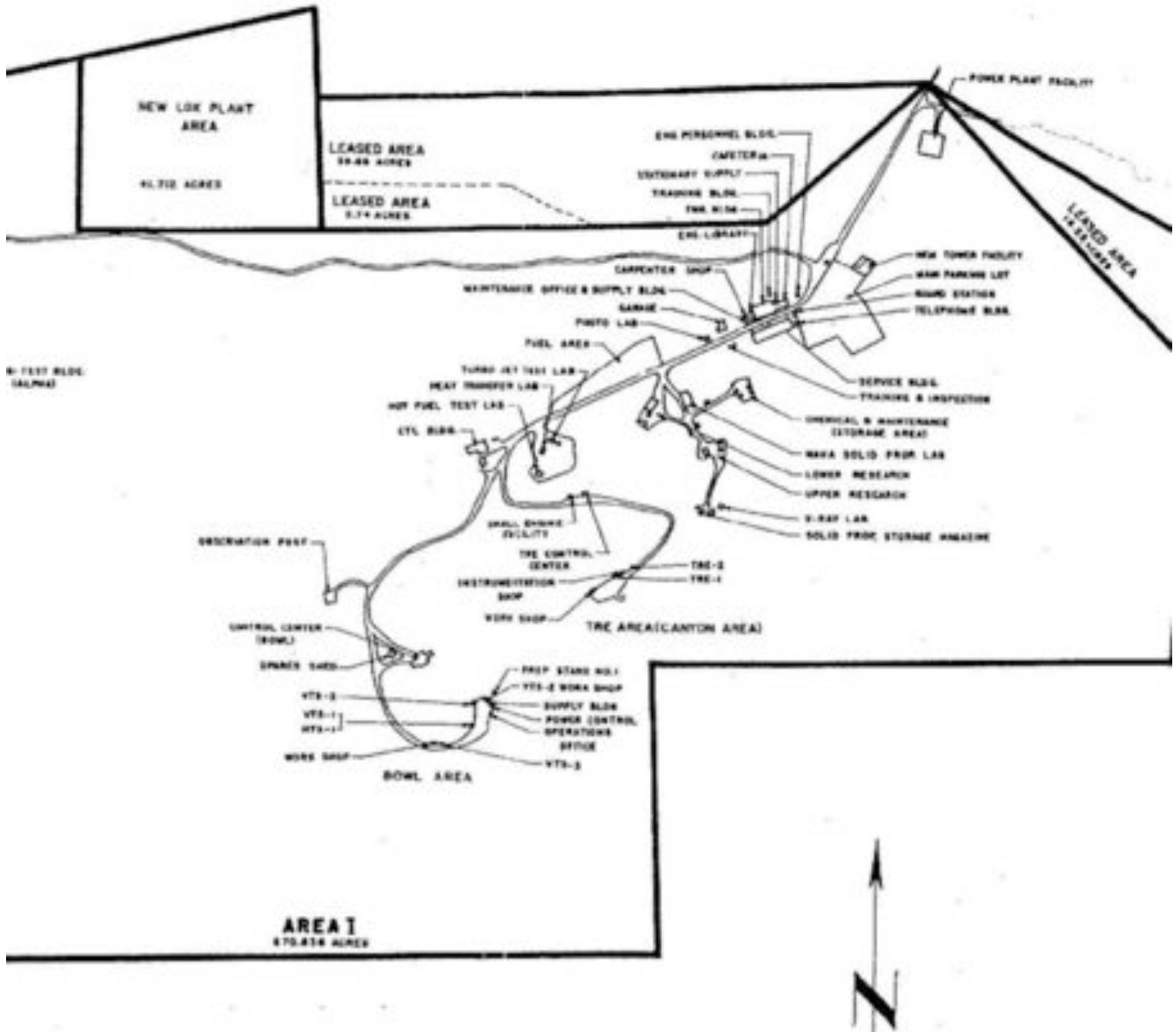
Enclosed please find my comments on the Group 1a Resource Conservation Recovery Act Facility Investigation Report (Group 1a RFI Report) representing results of contamination and debris in the AREA I portion of the Santa Susana Field Laboratory (SSFL).

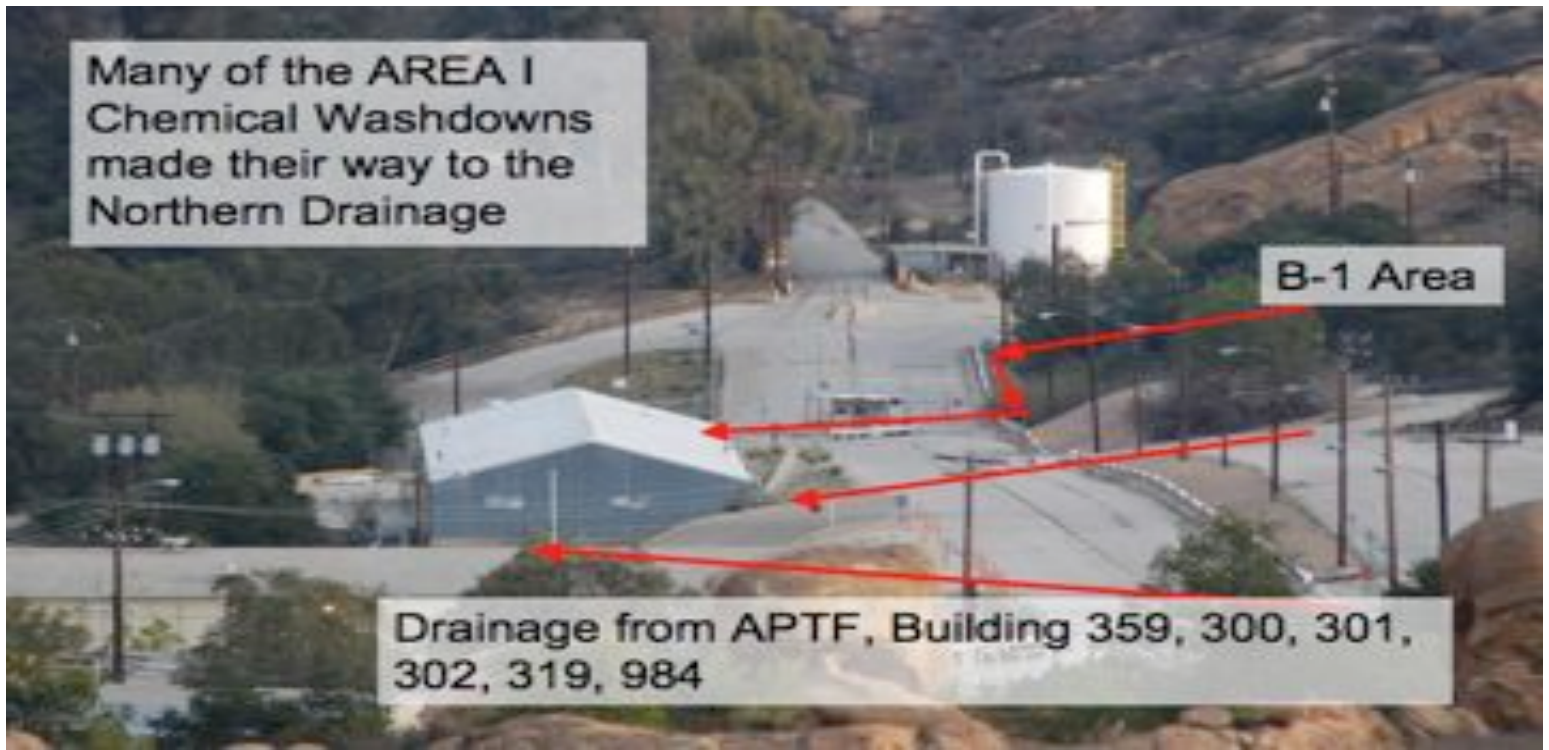


In the nine sites identified in the illustration above, stepping out further and into the dumping zones and the former "Leased Areas" of the Northern Drainage should be included in Group 1a as they were areas of impact from the mentioned RFI area.

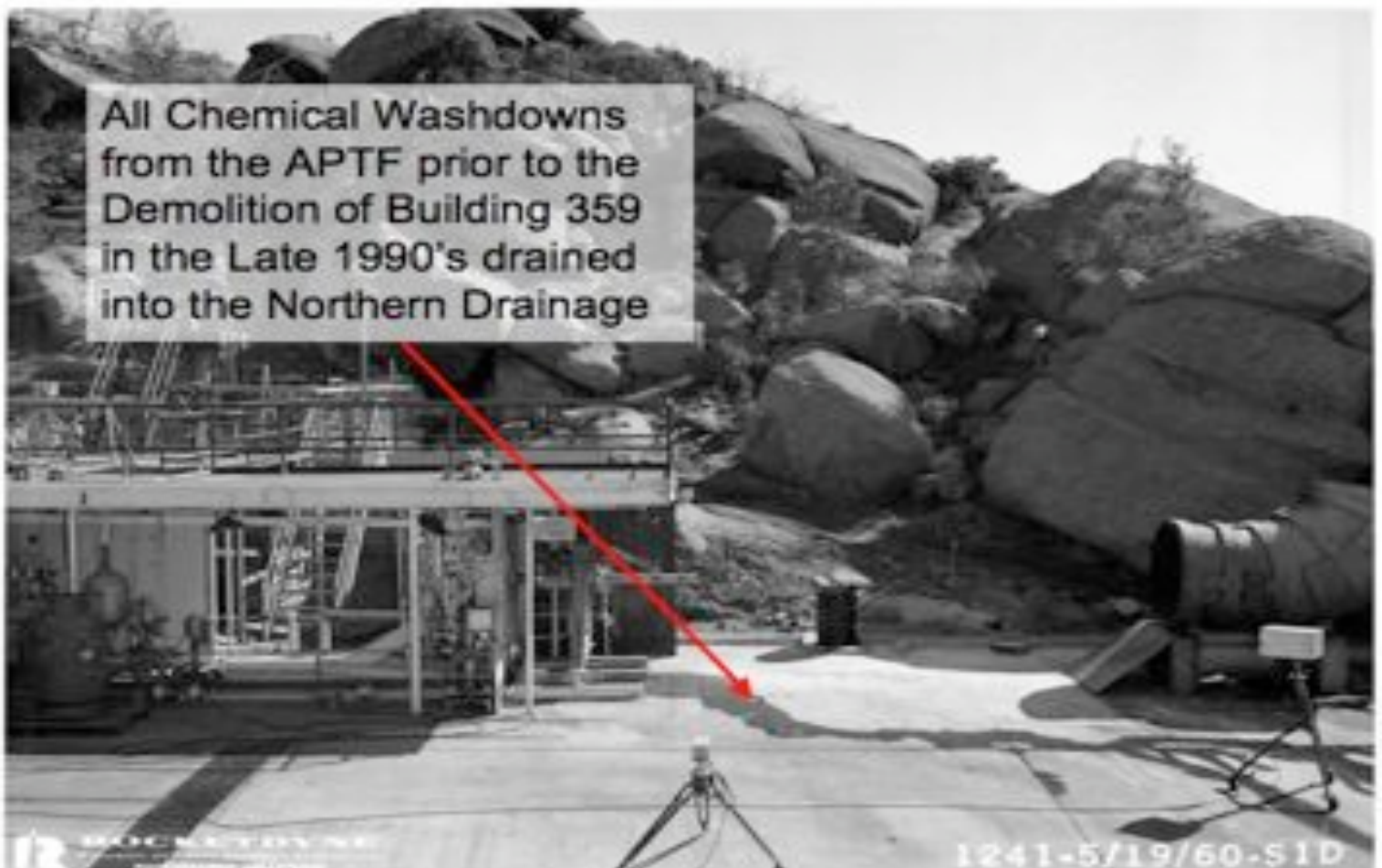
The "Leased Areas" of the Northern Drainage (See Below Illustration) should be included in Group 1a as they were former operational areas. These areas were found to have Hazardous Debris that warranted an Imminent and Substantial Endangerment Order (ISEO) by the Department of Toxic Substances Control (DTSC) and to this day the cleanup continues. In Section 4.2.1.1 of the Haley & Aldrich Former Shooting Range Debris Removal Action Report - May 28, 2009 reports Aerospace Igniters, not to mention the 11,000 cubic yards of removed Asbestos, Antimony and Polyaromatic Hydrocarbons (PAH's). This area drains through National Pollutant Discharge Elimination System (NPDES) Outfall 009 that then releases into the American Jewish University's Brandeis-Bardin Campus.

D LABORATORY





Prior to 1996 the Drainage from the Facilities area within the Building 359 complex was diverted into the Northern Drainage through a series of Swales & Pipes, now it is diverted to the South into the Perimeter Pond near the AREA I Burn Pit.



The Northern Drainage is not the only potential for an offsite contamination pathway, the map on page two also show the Hot Fuel Area that could impact the Los Angeles River through a release at NPDES Outfall 015. There are several areas on the Page TWO map that do not exist today and are not fully documented and with these unknown operations the 18 No Further Action (NFA) sites in Group 1a should be carried into next phase of Corrective Measures Study (CMS) evaluation. With The Boeing Co. and their practices of Demolition First and Sample Later, how are we assured that the debris is being transported to the appropriate licensed landfills? Do they know what they are trucking down the neighborhoods?



In the above photograph we see a tanks on a flatbed truck passing by ACME on Lake Manor Drive, apx. 1.5 miles from the front gate of the SSFL. The photo next to it shows the same tank in place in AREA I of the SSFL. Notice the markings on the tank are identical. According to Figure E.2-4 of the Group 1a Soil Disturbance Area Map is indicates this is a DMH (DIMETHYLHYDRAZINE) Tank. These tanks are taken to other Aerospace Facilities across the greater Los Angeles area for reuse and in some cases their previous contents are unknown. As seen in the photo below, many of the assets from the SSFL such as tanks and parts are stockpiles at the Pratt Whitney Rocketdyne (PWR) Facility in Canoga Park next to the Topanga Westfield Shopping Center.





When ACME questioned PWR about these storage areas the response was...

Pratt & Whitney Rocketdyne, Inc.

6633 Canoga Avenue
P.O. Box 7922
Canoga Park, CA 91309-7922



29 April 2009

Mr. William Bowling
23350 Lake Manor Drive
Chatsworth, CA 91311

Mr. Bowling,

Pratt & Whitney Rocketdyne (PWR) has reviewed the questions you raised in your e-mail of March 11, 2009. The following shall serve as PWR's response to your inquiry:

Tooling

The tooling in the photo you provided is used to support various lifting, testing or manufacturing processes of the Space Shuttle Main Engine. Approximately half the tooling pictured was previously stored in other buildings at the Canoga Site and was mislabeled as being in transit from SSFL. The remaining tooling was previously located at a long-term outdoor storage pad in Area I at SSFL. This tooling has never been exposed to a radioactive source, nor has it been used in any process involving a radioactive source. Furthermore, The Boeing Company has assured us that it conducts an appropriate assessment of each article shipped to us.

There is a Source Removal Action currently underway at NPDES Outfall 008 and upon it's completion we need to see the Happy Valley area in Group 1a be remediated as well to ensure there will be no contamination in the newly remediated Outfall 008 Watershed.



The Group 1a RFI Report indicates that there are no seeps and springs in the reporting area. This is False. The entire watershed of NPDES Outfall 8 is surrounded by seeps and springs and in several areas of the IEL Fault there are seeps and springs as well.

A bulldozer matches its weight with a Santa Susana boulder in the process of building a roadway to the laboratory site.

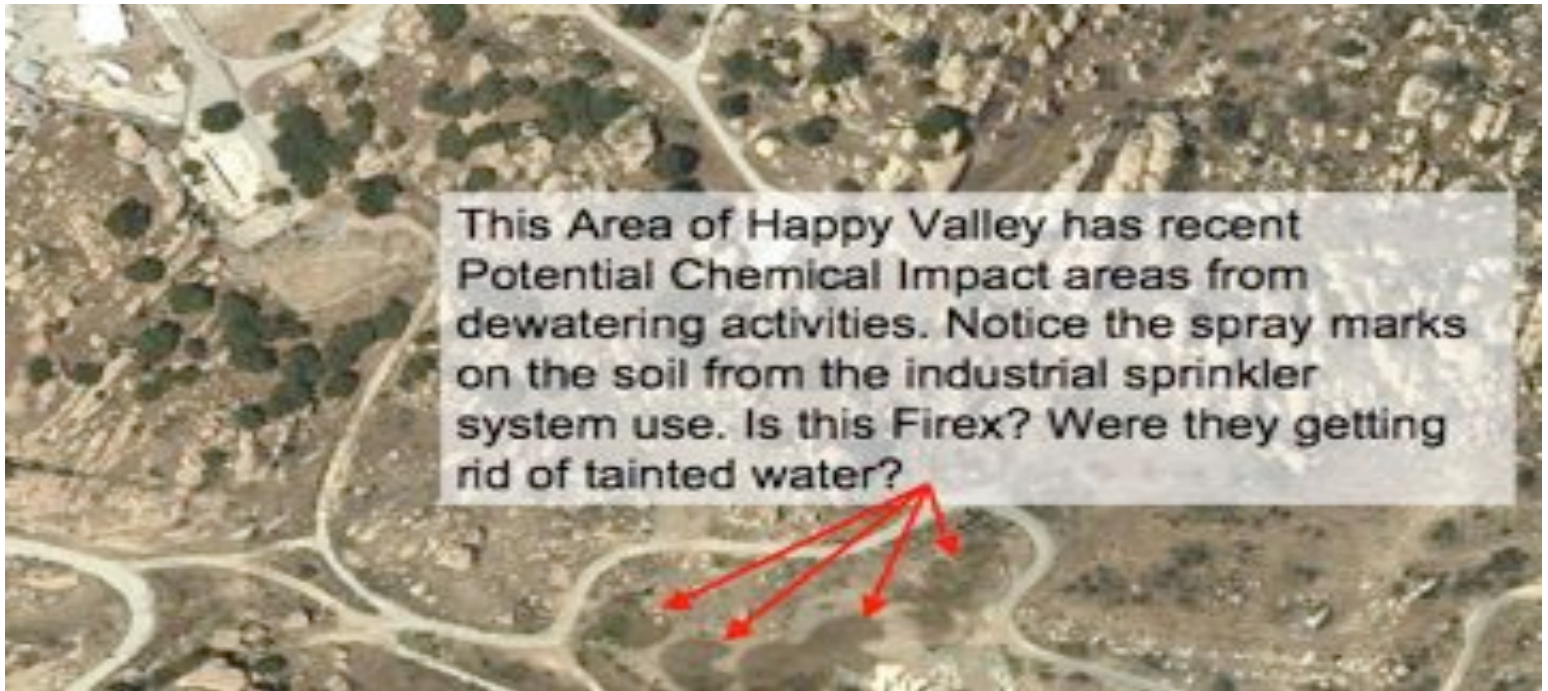


We have to remember that the NPDES Outfall 008 Watershed was the original road to Rocketyne (See Above Photo, an illustration of the rugged terrain that could have been a potential hazard in transportation of Solvents and Chemicals up and down the mountain) as explained in the link below.

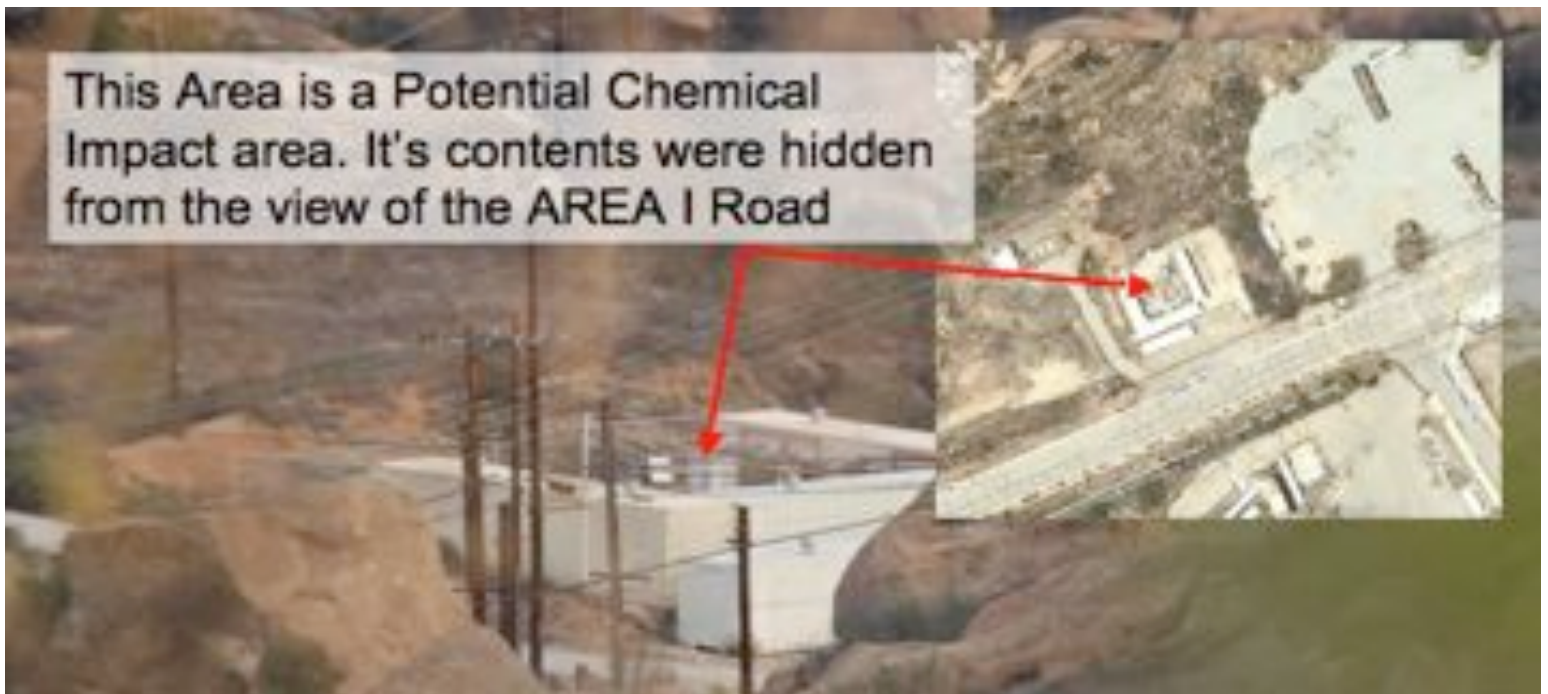
<http://www.acmela.org/images/ACME Reports Dayton Canyon - THE ROAD to ROCKETYNE Jan 28 of 2009.pdf>

This could offer an explanation to why there were high findings of perchlorate in the offsite area of Dayton Canyon. The high findings were actually found on the original road to Rocketyne and Dayton Canyon should be investigated further up onto this road towards Woolsey Canyon. These areas drain into Dayton Creek, a tributary to the Los Angeles River. These headwaters to the L.A. River and the impacts from the SSFL have the potential to reach 52 miles into the harbor of Long Beach.

With these findings and the Haley & Aldrich findings of offsite debris in Dayton Canyon 7 days after the October 10th, 2008 NFA from DTSC and the discovery of the "Old Road to Rocketdyne" from Dayton Canyon, ACME requests that Dayton Canyon be re-opened as an investigation. This portion of Ventura County has the potential for health impacts in Los Angeles County as well



The photo above and below documents areas that may have a potential chemical impact and should be looked into further. Over 3000 Unexploded Ordinance (UXO's) were found here and removed, some may still remain leaving perchlorate impacts.





A picture is worth a thousand words or every picture tells a story. We see 55 Gallon Drums found on the banks of Dayton Creek, a tributary of the L.A. River. An interview with a former employee who worked at the AREA I Burn Pit (adjacent to Happy Valley & Dayton Canyon) recalls that "On Several Occasions" when burning waste, "Some would Get Away". The reaction from Chemicals and Radionuclides stored in drums have the potential to travel several feet to several hundred yards when coming in contact with other Chemicals, Fire, Air or Water. These Drums could have potentially been thrown and rolled onto it's current banged up position from it's launch from the AREA I Burn Pit. We must not forget examples of the impacts waste destruction most notably in the July 1994 Chemical Explosion that killed Otto K. Heiney and Larry A. Pugh (Heiney vs. Rockwell Int'l - Filed July 1995 U.S. District Court). The Practices of the AREA I Burn Pit have been proven to be in the Building 359 Facility and impacting it's watershed.



The Canyon Area and it's Trichloroethylene (TCE) use and deliveries made from the "Old Road to Rocketyne" should be investigated further. If the paths of the TCE lines are not documented then one has to assume that the entire miles of pipe should be looked into for potential areas of impact.



The Canyon Area was a user of TCE from it's activation in 1954 until the late 1960's.



CTL I was used as the Components Building for the Bowl Rocket Engine Test Stands and all related activities should be considered in both Group 1a and 1b.



As you first enter the SSFL from Woolsey Canyon, on your right side is the former location of Building 435. Prior to its demolition earlier this year in 2009 it was used for Shipping & Receiving. With all of the potential Chemicals and Radionuclides Shipped and received, Building 435 needs further investigation. You can see a Hazardous Waste Labeled 55 Gallon Drum sitting outside the loading bay on the asphalt.

RADIOLOGICAL ISSUES

Report concludes no significant radiologic-related work documented at Group 1A sites

SPECIFIC AREAS OF RAD INTEREST

- LETF POND – Tritium discharge in 1980's
- AILF – Unscreened debris disposed in landfill
- IEL – AI Tower - SRE rod mockup tower
- Others (leach fields, debris areas)

****DTSC will require rad surveys at Area 1****

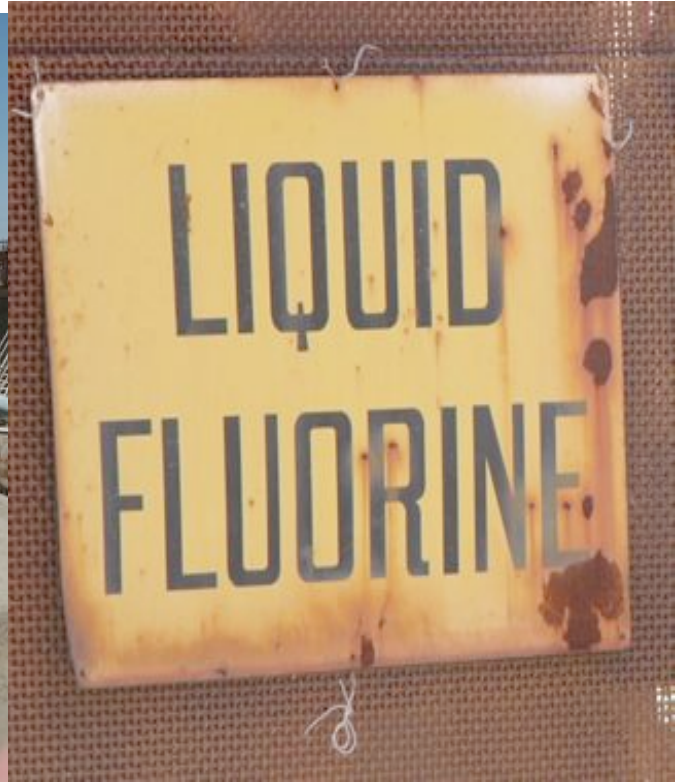
With the potential Radiological issues the B-1 Area (Former Power Plant Facility), were there any Radiological studies and associated Chemicals that could be used in Group 1a RFI? Look for Asbestos in all areas, as they coated walls of these facilities including APTF.



In the above photo we see Rocketdyne Employees at the Advance Propulsion Test Facility (APTF) handling Pentaborane, a chemical compound considered in the 1950s as a good prospect for a rocket or jet fuel by both the U.S. and Russian armed services, a so-called "exotic fuel". Its chemical structure is that of five atoms of boron compounded with nine atoms of hydrogen (B_5H_9); it is one of the boranes. Because simple boron compounds burn with a characteristic green flame, the nickname for this fuel in the U.S. industry was "Green Dragon".

Above $150\text{ }^{\circ}\text{C}$, it decomposes, producing hydrogen; when it occurs in a closed container, the consequent rise of pressure may be dangerous. It is highly toxic on inhalation, ingestion, and skin absorption; it is damaging to eyes and skin, can damage liver and kidneys, and can attack the nervous system; symptoms of lower-level exposure may occur with up to 48 hours delay. Its acute chemical toxicity is comparable to some nerve agents. It is much more stable in presence of water than diborane.

Pentaborane is highly soluble in hydrocarbons, benzene, and cyclohexane, and in greases including those used in lab equipment. Evaporation from skin may cause frostbites. In storage, it decomposes negligibly, yielding small amount of hydrogen and solid residue. It is manufactured by pyrolysis of diborane. In the USA, pentaborane was produced by Callery Chemical Company; in 1985, Callery repurchased some of the reserve fuel and processed it to elementary boron. If Boron is detected the above father and breakdown chemicals need to be considered.



Why is the Fluorine Burn Box adjacent to LETF-8 Test Pad 3 not on the SVOC's chemical data results LETF/CTL-I RFI site northwest area figure h.3-2A The highest specific impulse chemistry ever test-fired in a rocket engine was lithium and fluorine, with hydrogen added to improve the exhaust thermodynamics (making this a tripropellant)[1]. The combination delivered 542 seconds (5.32 kN·s/kg, 5320 m/s) specific impulse in a vacuum. The impracticality of this chemistry highlights why exotic propellants are not actually used: to make all three components liquids, the hydrogen must be kept below $-252\text{ }^{\circ}\text{C}$ (just 21 K) and the lithium must be kept above $180\text{ }^{\circ}\text{C}$ (453 K). Lithium and fluorine are both extremely corrosive, lithium ignites on contact with air, fluorine ignites on contact with most fuels, and hydrogen, while not hypergolic, is an explosive hazard. Fluorine and the hydrogen fluoride (HF) in the exhaust are very toxic, which damages the environment, makes work around the launch pad difficult, and makes getting a launch license that much more difficult. The rocket exhaust is also ionized, which would interfere with radio communication with the rocket.

An important consideration when evaluating a remedy is whether the compound is halogenated or nonhalogenated. A halogenated compound is one onto which a halogen ion (e.g., fluorine, chlorine, bromine, or iodine) has been attached. The nature of the halogen bond and the halogen itself can significantly affect performance of a technology or require more extensive treatment than for nonhalogenated compounds.

As an example, consider bioremediation. Generally, halogenated compounds are less amenable to this form of treatment than nonhalogenated compounds. In addition, the more halogenated the compound (i.e., the more halogens attached to it), the more refractive it is toward biodegradation. As another example, incineration of halogenated compounds requires specific off-gas and scrubber water treatment for the halogen, in addition to the normal controls that are implemented for nonhalogenated compounds. Therefore, the vendor of the technology being evaluated must be informed whether the compounds to be treated are halogenated or nonhalogenated. In most instances, the vendor needs to know the specific compounds involved so that modifications to technology designs can be made, where appropriate, to make the technology successful in treating halogenated compounds.

Subsurface contamination by halogenated SVOCs potentially exists in four phases:

Gaseous phase: contaminants present as vapors in saturated zone.

Solid phase: contaminants adsorbed or partitioned onto the soil or aquifer material in both saturated and unsaturated zones.

Aqueous phase: contaminants dissolved into pore water according to their solubility in both saturated and unsaturated zones.

Immiscible phase: contaminants present as NAPLs primarily in saturated zone.

One or more of the three fluid phases (gaseous, aqueous, or immiscible) may occupy the pore spaces in the unsaturated zone. Residual bulk liquid may be retained by capillary attraction in the porous media (i.e., NAPLs are no longer a continuous phase but are present as isolated residual globules). Contaminant flow may occur through a number of mechanisms. Volatilization from residual saturation or bulk liquid into the unsaturated pore spaces produces a vapor plume. While the degree of volatilization from halogenated SVOCs is much less than for halogenated VOCs, this process still occurs. Dissolution of contaminants from residual saturation or bulk liquid into water may occur in either the unsaturated or saturated portions of the subsurface with the contamination then moving with the water. Even low-solubility organics may be present at low concentrations dissolved in water. Insoluble or low solubility organic contaminants may be present as NAPLs. DNAPLs will tend to sink to the bottom of surface waters and ground water aquifers. LNAPLs will float on top of surface water and ground water. In addition, LNAPLs may adhere to the soil through the capillary fringe and may be found on top of water in temporary or perched aquifers in the vadose zone.

In Table 3-2 of the Group 1a Reporting Area Chemical Use Investigation Areas Page 13 of 16 the LETF Former Storage Area (SWMU4.12) the Potential Chemicals are Unknown or Not Documented. See TCE Photo.





The above photos (1982 Top - 2007 Bottom) are the Components Test Laboratory (CTL I) and was used as the Components Building for the Bowl Rocket Engine Test Stands and all related activities should be considered in both Group 1a and 1b.



The above photos are of an Artists Rendering prior to construction (Left) and a construction photo (Right) of the Components Test Laboratory (CTL I). Notice the preparation for the pouring of the concrete drainage swale, they went very deep into the ground. Deeper hand Auger sampling needs to be done in this area as the contamination could potentially exist in the deeper soils under the former trench. We cannot take any chances in the risk of continuing to impact the surrounding communities from the SSFL. With the recent finding of Tritium within the footprint of this facility we need to be extra attentive to the collection and delivery of samples to laboratories selected by the contractors. This is the area of the Sheer Zone and a northward traveling plume of contamination and extra steps need to be taken to make sure the Tritium and other potential Radionuclides and Chemicals are not migrating offsite. We have seen truckloads of contamination removed from the Santa Monica Mountains Conservancy Parkland at Sage Ranch from this plume.



The above areas of this unclassified photo of CTL-I that appear to be doctored need to be further evaluated.



Drainage from 1301 (a sink from that Facility) is fed by pipes into the Northern Drainage and of if it's associated Chemicals need to be further investigated to ensure a proper characterization of the ongoing sampling of NPDES Outfall 009.



Thank Mr. Carpenter for taking the time to review and consider my comments for the Group 1a Resource Conservation Recovery Act Facility Investigation Report.

In closing the AREA I Landfill needs further evaluation and The Boeing Co. must produce the records of this dumpsite.

If there are any questions please call...310-428-5085

William Preston Bowling - Founder/Director

ACME (Aerospace Cancer Museum of Education)

<http://www.ACMEIa.org> 23350 Lake Manor Drive, Chatsworth, California 91311