UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MEMORANDUM

DATE: September 28, 2016

SUBJECT: Project Ceiling Increase Approval, Funding, and Exemption from the $2 Million Statutory Limit to Continue the Removal Action at Fruitland Magnesium Fire Incident, Maywood, Los Angeles County, CA

FROM: for Jason Musante, On-Scene Coordinator DAM
Emergency Response Section (SFD-9-2)

TO: Enrique Manzanilla, Director
Superfund Division

THROUGH: Harry Allen, Chief HA
Emergency Response Section (SFD-9-2)

I. PURPOSE

The purpose of this Action Memorandum is to request and document your approval of (1) a change in the scope of the Fruitland Magnesium Fire Site ("Site") project, and (2) an increase of the project ceiling from $1,620,000 to $3,960,000 in direct extramural costs to mitigate threats to human health and the environment posed by uncontrolled hazardous substances (namely arsenic, cadmium, chromium, lead, and mercury) in ash, debris and soils associated with a fire-damaged industrial property located at 3570 Fruitland Avenue, Maywood, CA.

On June 16, 2016, the EPA On-Scene Coordinator (OSC) exercised delegated procurement authority to begin emergency stabilization and response actions. The United States Environmental Protection Agency ("EPA") approved the initial response action in the July 1, 2016 Request for a Time-Critical Removal Action at Fruitland Magnesium Fire Site (the "Action Memorandum"), included as Attachment C of this memorandum. The time-critical removal action is being taken pursuant to Section 104(a)(1) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9604(a)(1), to mitigate threats to human health and the environment posed by the presence of heavy metals in residential properties in Maywood. The required exemption to spend more than $2 million is justifiable under

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the criteria of 40 C.F.R. § 300.415(b)(5)(i), which allows for an exemption from the statutory limitation on response costs when: 1) there is an immediate risk to public health or welfare or the environment; 2) continued response actions are immediately required to prevent, limit, or mitigate an emergency; and 3) such assistance will not otherwise be provided on a timely basis.

The actions proposed in this document will allow transition from on-going emergency removal and stabilization activities into necessary time-critical removal actions. As explained below, the additional funding requested in this memorandum is necessary for cleanup costs associated with the industrial property which is adjacent to the residential properties that were addressed during the initial emergency response/removal action.

II. SITE CONDITIONS AND BACKGROUND

Site Status: Non-NPL
Category of Removal: Time-Critical
CERCLIS ID: CAN000903494
SITE ID: A9AP

A. Site Description

1. Physical location

The Fruitland Magnesium Fire Incident (the "Site") is located at 3570 Fruitland Avenue, Maywood, Los Angeles County, CA (Latitude: 33.9961640, Longitude: -118.2011630). On the southern fence line of the Site is a residential neighborhood consisting of single family homes and apartment complexes. Light industry surrounds the Site in the other cardinal directions. See Figure 1 for a Site Location Map.

On June 14, 2016, at approximately 0200 hours, a fire started at the Panda International Trading Company (PIT). The fire at the PIT facility spread to the SOKOR Metals Company, both of which are located at 3570 Fruitland Ave. PIT collected and processed scrap metal and transported it out in bulk for recovery. SOKOR is a precious metals recovery operation that recovers precious metals from circuit boards and other electronics. Both facilities were heavily damaged in the fire.

Region 9 signed an Action Memorandum on July 1, 2016 to document the continuation of the response to the fire and in particular the removal residual ash from the street (Fruitland Ave and E 52nd Street, and segments of Everett and Maywood Avenues); assessment of the evacuated residential properties; decontamination of interior and exterior of impacted residential properties; removal of ash from impacted residential yards; and fencing, stabilization and mitigation measures at the PIT/SOKOR property.

0 Scale in Feet 150

PREPARED BY:
Region 9, START
Weston Solutions, Inc.
5881 Obispo Ave, Ste 101
Long Beach, CA 90805

PREPARED FOR:
EPA Region 9
Pacific
Southwest

Figure 1: SITE LOCATION MAP
Fruitland Mg Fire Site
Maywood, Los Angeles County, California

Contract: EP-S5-13-02

TDD Number: 0002/1302-T2-R9-16-05-0001

2. Site characteristics

As described above and outlined in the July 1, 2016 Action Memorandum, the initial scope of the Site included the exteriors and interiors of residential properties along E 52nd Street (both sides of the street). The July 1, 2016 Action Memorandum also included stabilization measures at the PIT and SOKOR Metals property. This updated Action Memorandum expands the scope of the response actions at the portion of the Site where the operations of the PIT and SOKOR Metals Company are located. The PIT and SOKOR Metals property is an industrial property which is located directly adjacent to residential properties. As shown in Figure 1, residential properties are located directly on the fence line of the industrial property. Sampling of ash, debris and soils at the industrial property has indicted the presence of hazardous materials in all of these media. While initial stabilization measures were implemented as an emergency measure, debris from the fire and PIT and SOKOR Metals operations remains on the Site. Residents continue to complain about the situation at this industrial property and have concerns regarding the impact of the Site to their health and welfare.

3. Removal site evaluation

On June 16, 2016, while the fire was burning, EPA dispatched the START contractor and directed the collection of air samples and ash profile samples. Relevant Contaminants of Concern (COCs) were detected in both media. On June 23, during the emergency response phase, START collected 3 ash samples, 4 debris samples, 2 powder samples and 4 soil samples on the industrial property. Due to the presence of piles of debris and issues with the structural stability of buildings on the Site, sampling was limited. Selected results from the samples are provided in the following table:

Contaminant	Regional Screening Levels (Residental/Industrial)	Haz Waste Threshold TTLC	Ash (n=3)	Debris (n=4)	Powder (n=2)	Soil (n=4)
Arsenic	68 / 300 (adj. 10^{-4})	500	51.8 – ***2,570***	12.2 - ***842***	ND - **264**	4.15 – ***834***
Cadmium	71 / 980	100	***6,950 – 23,200***	*807 –* ***37,500***	***1,360 – 34,400***	*136 –* ***1,210***
Chromium	120,000 / 180,000	500	2.06 - 457	1.87 – 71.7	ND – 15.5	291 – ***87,300***
Lead	400 / 800	1000	***13,400 – 189,000***	ND – ***86,100***	0.142 – ***1,300***	ND – 63.1
Mercury	11 / 46	20	ND – ***943***	0.123 – ***329***	6.35 – ***2,170***	ND – ***2,020***

Notes:
All units are in milligrams per kilogram (mg/kg)
Bold: Result above Regional Screening Level; *Italics*: Result above Haz Waste Threshold

In summary, these preliminary samples indicate exceedances of hazardous waste thresholds for selected COCs in ash, debris and powder grab samples. One exception is chromium which exceeds hazardous waste thresholds only in soil. Arsenic, cadmium, and mercury exceed industrial use risk-based Regional Screening Levels in soil samples. Arsenic, cadmium, lead, and mercury also exceed risk based thresholds

in ash, debris and powder. One result in soil also contained a concentration of 640 mg/kg of one PCB congener (Aroclor-1242). These results, while incomplete, document the presence of hazardous substances above waste and/or risk thresholds. They also suggest that the soil likely has additional contamination that will require further characterization.

In addition to this sampling event, EPA and START contractor conducted subsequent visits to the Site to plan removal activities. During the September 2, 2016, visit the team estimated quantities of contaminated debris, scrap metal and soil for removal. During this visit, the team documented the presence of ash, debris, drums, bulk containers, electronic waste, universal waste, and batteries.

4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

EPA's removal assessment documented the presence of hazardous substances including arsenic, mercury and heavy metals (cadmium, chromium, and lead) in ash, debris, powders and/or soils on Site. Laboratory analytical data has confirmed the presence of California Title 22 TTLC hazardous wastes. In addition there may be some PCB contamination in Site soils. Such hazardous wastes are "hazardous substances" as defined by Section 101(14) of CERCLA.

5. National Priorities List ("NPL") status

The Site is not currently on or proposed for inclusion on the NPL.

B. <u>Other Actions to Date</u>

On June 16, 2016, LA County Fire Health Hazmat Management Division (HHMD) requested EPA assistance in mitigation of the hazardous substances on the Site. EPA actions were performed consistent with the July 1, 2016 Action Memorandum. EPA participated in the emergency response action along with LA County Fire Heath HHMD and LA County Department of Public Health (DPH) in a Unified Command (UC). Actions included evaluation and cleanup of the residential properties along E 52nd Street and stabilization of the industrial property, as discussed above.

C. <u>State and Local Authorities' Roles</u>

1. State and local actions to date

LA County Fire HHMD and LA County DPH participated in the UC for the incident during the initial response and residential property cleanup. In earlier operational periods, CA Department of Toxic Substances Control (DTSC) was on Site to coordinate with the emergency response and conduct an investigation along with LA

County Fire HHMD. LA County Office of Emergency Services (OES) provided relocation support, along with support from a number of other county agencies.

2. Potential for continued state/local response

While support for relocation and residential personal property damage has been provided by county agencies, neither State nor local agencies have the resources to undertake the required hazardous waste removal at the industrial property at this time; however, solid waste removal assistance may become available. Representatives from State and local response organizations will continue to assist and coordinate with EPA in various tasks including data review, planning and community relations.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

Conditions at the Site exist which may pose an imminent and substantial endangerment to public health, and/or welfare, or the environment based on the factors set forth in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 C.F.R. § 300.415(b)(2). These factors include:

1. Actual or potential exposure to nearby populations, animals or the food chain from hazardous substances or pollutants or contaminants

There is an actual or potential exposure to nearby populations from hazardous substances at the Site. Ash, debris, powder and soils containing arsenic, mercury, PCBs and heavy metals have been identified on the industrial property. The property is bordered on one side by a residential area. This is the area impacted by ash during the fire event. Ash throughout the burn area also has not been fully stabilized or mitigated. Any person entering the fire damaged areas may be exposed to hazardous substances by direct contact with or inhalation of contaminated ash and debris. Nearby populations may be exposed to hazardous substances via direct contact and inhalation

Arsenic, cadmium, lead, and mercury are present above hazardous waste determination thresholds in contaminated media at the Site. Arsenic, cadmium and mercury exceed industrial use risk-based Regional Screening Levels in soil samples. Other hazardous substances or pollutants and contaminants not discovered to date or not specifically identified herein may exist at the Site. These substances may also pose a threat to human health and the environment.

Arsenic is toxic and is commonly used as a poison to control pests. Exposure can occur via airborne dust, drinking water, incidental ingestion of soil, and direct contact with contaminated soils. Arsenic affects the skin, the respiratory system, the kidneys, the liver, the central nervous system, the gastro-intestinal tract and the reproductive system, and is a possible teratogen. The EPA has determined that

inorganic arsenic is a known human carcinogen. Exposure for shorter periods of up to a year can result in several non-cancer adverse health effects. Low levels of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, and damage to blood vessels. At high levels, inorganic arsenic can cause death.

Cadmium is a highly toxic heavy metal, especially by inhalation of dust or fume. Cadmium is a potential occupational carcinogen that targets the respiratory system, kidneys and blood. Cadmium poisoning can result in pulmonary edema, dyspnea (breathing difficulty), emphysema, anemia, nausea and vomiting. Cadmium is also flammable in powder form.

Lead is a heavy metal that bio-accumulates in human tissues. Short-term exposure to large amounts of lead can cause harmful effects on the nervous system, gastrointestinal system, kidneys, and circulatory system. Long-term exposure to low levels, such as those that occur in the work place, can cause damage to the central nervous system, kidneys, blood, gastrointestinal tract, and gingival tissues. Children are particularly sensitive to the chronic effects of lead, with slowed cognitive development, reduced growth and other effects Lead exposure may result in loss of appetite, anemia, malaise, insomnia, headache, irritability, muscle and joint pains, tremors, hallucinations and distorted perceptions, muscle weakness, gastritis, and liver changes. The major organ systems affected are the nervous system, blood systems, and the kidneys. Low levels of lead impair neurotransmission and immune system functions and may increase systolic blood pressure. The effects of lead are the same whether it enters the body through breathing or swallowing. EPA has determined that lead is a probable human carcinogen.

Mercury is a natural occurring heavy metal which has several forms. The nervous system is very sensitive to all forms of mercury. Methylmercury and metallic mercury vapors are more harmful than other forms, because more mercury in these forms reaches the brain. Exposure to high levels of metallic, inorganic, or organic mercury can permanently damage the brain, kidneys, and developing fetus. Effects on brain functioning may result in irritability, shyness, tremors, changes in vision or hearing, and memory problems. Short-term exposure to high levels of metallic mercury vapors may cause effects including lung damage, nausea, vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation.

2. High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate

Sampling results have documented the presence of heavy metals in ash, debris and soils on the Site. See Section A3 for a description of the hazardous substances present and their respective concentrations. The contaminated ash, debris and soils on the Site are located at the surface and could migrate, representing a direct exposure threat by contact or inhalation.

3. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released

Rain and/or winds may result in the off-site migration of contaminated soil and ash into surrounding residential properties, the street, storm sewers and the larger watershed.

4. Availability of other appropriate federal or state response mechanisms to respond to the release

LA County and DTSC have requested EPA assistance due to the size and scope of the impacted area. State and local resources are insufficient to conduct a response action at the Site at this time.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances, pollutants, and contaminants from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

The emergency phase of the removal action was focused on ensuring nearby residences were safe for re-occupancy and that further off-site migration of ash was minimized. As discussed above, contaminants which pose a threat still remain on the industrial property. EPA proposes to segregate the various types of materials at the Site including: solid wastes/debris, contaminated debris, and contaminated ash/soils at the Site. Solid wastes and contaminated debris will be evaluated to determine the most appropriate means of recycling or disposal. Contaminated ash and soils will be excavated in preparation for off-Site transportation and disposal. Limited characterization of the extent of surface/subsurface contamination at the Site has been conducted to date due to the occlusion of the ground surface by solid wastes and building debris. It is anticipated that additional hazardous wastes may be present and contingency costs have been built into the funding ceiling. Additional analytical data will be generated during the proposed removal for extent of contamination determinations, meeting cleanup goals, and waste characterization/profiling for acceptance at RCRA permitted disposal facilities.

Air monitoring and sampling will be performed in accordance with OSHA requirements during all phases of the removal action to protect both workers and nearby residents, especially when there is a potential for airborne releases of toxic air

contaminants. Operational controls such as dust containment and/or suppression will be used to abate fugitive dust emissions. Stabilization and/or removal of fire damaged structures will be performed in order to ensure the safety of site workers and the community. All activities will be performed in conformance with prescribed health and safety procedures. All sampling and analysis activities will conform to EPA approved methodologies and mandatory specifications for quality assurance and quality control. This removal will comply with the Off-Site Rule, 40 C.F.R. § 300.440.

2. Contribution to remedial performance

EPA does not anticipate a long term remedial action at this Site. This removal action should remove all immediate threats posed by uncontrolled hazardous substances at the Site.

The long-term cleanup plan for the Site:

Final reporting of this removal action will be provided to LA County Fire HHMD for consideration in any further activities under state or county programs.

Threats that will require attention prior to the start of a long-term cleanup:

The immediate threats that have been identified in this Action Memorandum will be addressed by the proposed removal action.

The extent to which the removal will ensure that threats are adequately abated:

The removal of abandoned and above ground hazardous substances is expected to abate the immediate threats from the Site.

Consistency with the long-term remedy:

As stated above, removal activities undertaken in this action will be considered and incorporated into state and county facility closure proceedings.

Post Removal Site Control:

The elimination of all threats identified for this removal action is expected to eliminate the need for post-removal Site control.

3. Applicable or relevant and appropriate requirements ("ARARs")

Section 300.415(j) of the NCP provides that removal actions must attain ARARs to the extent practicable, considering the exigencies of the situation.

Section 300.5 of the NCP defines applicable requirements as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstances at a CERCLA site.

Section 300.5 of the NCP defines relevant and appropriate requirements as cleanup standards, standards of control and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, or contaminant, remedial action, location, or other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site and are well-suited to the particular Site.

Because CERCLA on-site response actions do not require permitting, only substantive requirements are considered as possible ARARs. Administrative requirements such as approval of, or consultation with administrative bodies, issuance of permits, documentation, reporting, record keeping and enforcement are not ARARs for the CERCLA response actions confined to the Site.

The following ARARs have been identified for the proposed response action. All can be attained.

Federal ARARs: Potential federal ARARs are the RCRA Land Disposal Restrictions 40 C.F.R. Part 268, and the U.S. Department of Transportation of Hazardous Materials Regulations 49 C.F.R. Part 171, 172 and 173.

State ARARs: Potential state ARARs are the Characteristics of Hazardous Waste implemented through the California Health and Safety Code, Title 22, § 66261.20 and § 66261.21; and the South Coast Air Quality Management District Requirements Applicable to the Excavation and Handling of Contaminated Soil: SCAQMD Rule 401 - visible emissions, SCAQMD Rule 402 - nuisance dust, and SCAQMD Rule 403 - fugitive dust.

4. Project schedule

The residential phase of the response action was conducted from June 16, 2016 to July 11, 2016. The next phase of work is scheduled to begin in the fall of 2016 and proceed for approximately 6 weeks.

B. Estimated Costs with Ceiling Increase

Regional Removal Allowance Costs	Original Costs	Additional Costs	Total Costs
Cleanup Contractor	$ 700,000	$1,300,000	$2,000,000

ERT/PST	$ 150,000	$ 150,000	$ 300,000
START Contractor	$ 500,000	$ 500,000	$1,000,000
Extramural Subtotal	$1,350,000	$1,950,000	$3,300,000
20% Contingency	$ 270,000	$ 390,000	$ 660,000
TOTAL, Removal Action Project Ceiling	$1,620,000	$3,900,000	$3,960,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Given the Site conditions, the nature of the hazardous substances documented on-site and the potential exposure pathways to nearby populations described in Sections II, III and IV above, actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in this Action Memorandum, present an imminent and substantial endangerment to public health, or welfare, or the environment.

VII. OUTSTANDING POLICY ISSUES

There are no outstanding policy issues with the Site identified at this time.

VIII. ENFORCEMENT

Please see the attached Confidential Enforcement Addendum for a discussion regarding potentially liable parties and enforcement. In addition to the extramural costs estimated for the proposed action, a cost recovery enforcement action also may recover the following intramural costs:

Intramural Costs[1]	Original Cost	Additional Costs	Total Costs
U.S. EPA Direct Costs	$ 60,000	$ 100,000	$ 160,000
U.S. EPA Indirect Costs (56.51% of $3,960,000 +160,000)	$ 949,368		$2,328,212
Total Intramural Cost	$1,009,368		$2,488,212

$3,960,000 + (56.51% of $3,960,000 +$160,000) = $6,448,212

[1] Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of Site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

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The total EPA extramural and intramural costs for this removal action that will be eligible for cost recovery, based on full-cost accounting practices, are estimated to be $6,448,212. Of this, an estimated $3,960,000 comes from the Regional removal allowance.

IX. RECOMMENDATION

This decision document would commit additional funding to complete the response determined necessary for the Site. This response action was developed in accordance with CERCLA, is not inconsistent with the NCP, and is based on the Administrative Record for the Site.

Because conditions at the Site meet the NCP criteria for a time-critical removal and for exceeding the $2 million statutory ceiling, I recommend that you concur on the determination of imminent and substantial endangerment and the removal action proposed in this Action Memorandum. The total removal action project ceiling if approved will be $3,960,000 which comes from the Regional removal allowance. The requested additional extramural funding is $2,340,000 from the Regional removal allowance. You may indicate your decision by signing below.

Approved: _____ 9/28/16
Enrique Manzanilla, Director — Date
Superfund Division

Disapproved: _____
Enrique Manzanilla, Director — Date
Superfund Division

Enforcement Addendum

Attachment A: Index to the Administrative Record
Attachment B: Selected Data Tables
Attachment C: Request for a Time Critical Removal Action the Fruitland Magnesium Fire Site, July 1, 2016

Cc: Anne Berube, USEPA OECA
Lee Tyner, USEPA OGC
Elizabeth G. Berg, USEPA OGC

Bcc: Site File
Harry Allen, SFD-9-2
Michelle Rogow, SFD-9-2
Craig Whitenack, CI
Rebekah Reynolds, ORC
Celeste Temple, SFD-9-4

Confidential Enforcement Addendum

Attachment A: Index to the Administrative Record

1. Ash and Soil Sampling Analytical Results, June, 2016 Fruitland Magnesium Incident
2. Air Sampling Analytical Results, outdoor air sample data June 2016, Fruitland Magnesium Incident
3. ATSDR ToxFAQ for Arsenic. CAS#:7440-38-2. August 2007.
4. ATSDR ToxFAQ for Cadmium. CAS#:7440-43-9. October 2012.
5. ATSDR ToxFAQ for Chromium. CAS#:7440-47-3. September 2008.
6. ATSDR ToxFAQ for Copper. CAS#:7440-50-8. Mach 2011.
7. ATSDR ToxFAQ for Lead. CAS#:7439-92-1. August 2007.
8. ATSDR ToxFAQ for Mercury. CAS#:7439-97-6. April 1999.
9. ATSDR ToxFAQ for Zinc. CAS#:7440-66-6. March 2011

Attachment B: Selected Data Tables

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-ASH-004	MWF-Sre-ASH-005	MWF-Sre-ASH-006	MWF-Sre-Debris-029	MWF-Sre-Debris-030
			Sample Date:	6/23/2016	6/23/2016	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788	16-06-1788	16-06-1788
Total Metals / SW846-6010B / 7471A								
Aluminum	77,000 / 1,100,000	--	mg/kg	409	58.2	16.4	212	749
Antimony	31 / 470	500	mg/kg	ND (<0.1)	3.31	22.8	3.32	48.7
Arsenic	0.68 / 3.0	500	mg/kg	51.8	**2,570**	241	201	**591**
Barium ****	15,000 / 220,000	10,000	mg/kg	ND (<0.26)	0.382	ND (<0.248)	ND (<0.243)	ND (<0.15)
Beryllium	160 / 2,300	75	mg/kg	2.08	ND (<0.1)	41.9	0.382	18.6
Cadmium	71 / 980	100	mg/kg	**12,500**	**6,950**	**23,200**	**28,000**	**807**
Calcium	--	--	mg/kg	541	38,500	143	ND (<0.15)	ND (<0.1)
Chromium	120,000 / 1,800,000	500	mg/kg	457	45.9	2.06	71.7	2.29
Cobalt	23 / 350	8,000	mg/kg	1,540	3,990	806	**11,100**	391
Copper	3,100 / 47,000	2,500	mg/kg	**18,700**	**31,700**	ND (<0.15)	ND (<0.1)	35.6
Iron	--	--	mg/kg	2.76	1,510	7.83	0.695	10.2
Lead	400 / 800	1,000	mg/kg	**189,000**	**40,100**	**13,400**	**86,100**	**2,680**
Magnesium	--	--	mg/kg	ND (<0.15)	ND (<0.15)	ND (<0.1)	1.9	2.68
Manganese	1,800 / 26,000	--	mg/kg	1,760	11.8	ND (<0.0833)	116	44.9
Mercury	11 / 46	20	mg/kg	0.2	**943**	ND (<0.1)	0.123	0.284
Nickel	840 / 12,000	2,000	mg/kg	148	4.96	ND (<0.1)	ND (<7.46)	ND (<7.25)
Potassium	--	--	mg/kg	39	ND (<0.05)	31.5	ND (<0.15)	0.169
Selenium	390 / 5,800	100	mg/kg	ND (<0.1)	1.78	0.222	8.01	0.0608
Silver	390 / 5,800	500	mg/kg	ND (<0.728)	ND (<0.765)	ND (<7.39)	ND (<0.75)	1.76
Sodium	--	--	mg/kg	ND (<2.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<10)
Thallium	0.78 / 12	700	mg/kg	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
Vanadium	390 / 5,800	2,400	mg/kg	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<9.7)
Zinc	23,000 / 350,000	5,000	mg/kg	ND (<9.7)	ND (<9.7)	ND (<9.7)	ND (<9.7)	ND (<9.7)
STLC Metals / SW846-6010B (T22.11.5.AII)								
Aluminum	--	--	mg/L	0.864	1,140	4.45	772	652
Antimony	--	15	mg/L	0.778	2.49	1.12	2.42	**23.2**
Arsenic	--	5	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	0.357	0.594
Barium	--	100	mg/L	**709**	16.1	1.75	10.6	6.2
Beryllium	--	0.75	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
Cadmium	--	1	mg/L	0.612	0.53	ND (<0.1)	0.907	0.334
Calcium	--	--	mg/L	141	56.1	23.4	1,100	605
Chromium	--	5	mg/L	ND (<0.1)	0.371	ND (<0.1)	3.76	4.43
Cobalt	--	80	mg/L	ND (<0.1)	1.91	ND (<0.1)	0.487	1.46
Copper	--	25	mg/L	16.6	5.26	4.15	2.08	**72.5**
Iron	--	--	mg/L	1.37	38.6	25.8	1,230	1,210
Lead	--	5	mg/L	**25.4**	**128**	1.92	3.6	**2,950**
Magnesium	--	--	mg/L	3,680	1,160	33.1	88	66.9
Manganese	--	--	mg/L	6.46	24.1	1.31	26.5	20.6
Nickel	--	20	mg/L	0.541	4.92	0.49	3.12	**52.9**
Potassium	--	--	mg/L	1,650	143	9.68	65.8	33.6
Selenium	--	1	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Silver	--	5	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)
Thallium	--	7	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Vanadium	--	24	mg/L	ND (<0.1)	0.12	ND (<0.1)	0.573	0.393
Zinc	--	250	mg/L	**322**	61.1	50.7	**256**	175

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-ASH-004	MWF-Sre-ASH-005	MWF-Sre-ASH-006	MWF-Sre-Debris-029	MWF-Sre-Debris-030
			Sample Date:	6/23/2016	6/23/2016	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788	16-06-1788	16-06-1788
TCLP Metals / SW846-6010B (1311)								
Aluminum	--	--	mg/L	ND (<0.5)	118	0.536	3.07	60.9
Antimony	--	--	mg/L	ND (<0.15)	ND (<0.15)	0.349	ND (<0.15)	0.496
Arsenic	--	5	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.291
Barium	--	100	mg/L	420	16.3	ND (<1)	1.28	1.98
Beryllium	--	--	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
Cadmium	--	1	mg/L	ND (<0.1)	0.194	ND (<0.1)	ND (<0.1)	0.116
Calcium	--	--	mg/L	71.9	24.4	10.8	326	267
Chromium	--	5	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.118
Cobalt	--	--	mg/L	ND (<0.1)	3.31	ND (<0.1)	ND (<0.1)	0.269
Copper	--	--	mg/L	1.36	22.8	1.42	ND (<0.1)	26.1
Iron	--	--	mg/L	ND (<1)	3.32	ND (<1)	41.9	73
Lead	--	5	mg/L	ND (<0.1)	48.7	0.63	0.382	218
Magnesium	--	--	mg/L	941	399	8.34	18.6	23.7
Manganese	--	--	mg/L	ND (<0.05)	4.38	0.693	3.99	6.06
Nickel	--	--	mg/L	ND (<0.1)	1.1	0.213	0.379	7.18
Potassium	--	--	mg/L	782	63.9	ND (<5)	21.2	15
Selenium	--	1	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Silver	--	5	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)
Thallium	--	--	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Vanadium	--	--	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
Zinc	--	--	mg/L	1.52	14.7	23.8	36.1	53.4
PCBs / SW846-8082								
Aroclor 1016	4,100 / 27,000	--	µg/kg	ND (<50)	ND (<50)	ND (<990)	ND (<980)	ND (<200)
Aroclor 1221	200 / 830	--	µg/kg	ND (<50)	ND (<50)	ND (<990)	ND (<980)	ND (<200)
Aroclor 1232	170 / 720	--	µg/kg	ND (<50)	ND (<50)	ND (<990)	ND (<980)	ND (<200)
Aroclor 1242	230 / 950	--	µg/kg	620	180	ND (<990)	ND (<980)	ND (<200)
Aroclor 1248	230 / 950	--	µg/kg	ND (<50)	ND (<50)	ND (<990)	ND (<980)	ND (<200)
Aroclor 1254	240 / 970	--	µg/kg	ND (<50)	ND (<50)	ND (<990)	ND (<980)	ND (<200)
Aroclor 1260	240 / 990	--	µg/kg	ND (<50)	ND (<50)	ND (<990)	ND (<980)	ND (<200)
Aroclor 1262	--	--	µg/kg	ND (<50)	ND (<50)	ND (<990)	ND (<980)	ND (<200)
Aroclor 1268	--	--	µg/kg	ND (<50)	ND (<50)	ND (<990)	ND (<980)	ND (<200)
SVOCs / SW846-8270C								
1,2,4-TRICHLOROBENZENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
1,2-DICHLOROBENZENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
1,3-DICHLOROBENZENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
1,4-DICHLOROBENZENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
1-METHYLNAPHTHALENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2,4,5-TRICHLOROPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2,4,6-TRICHLOROPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2,4-DICHLOROPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2,4-DIMETHYLPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2,4-DINITROPHENOL		--	mg/kg	ND (<2.5)	ND (<2.5)	ND (<49)	ND (<50)	ND (<50)
2,4-DINITROTOLUENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2,6-DICHLOROPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2,6-DINITROTOLUENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-ASH-004	MWF-Sre-ASH-005	MWF-Sre-ASH-006	MWF-Sre-Debris-029	MWF-Sre-Debris-030
			Sample Date:	6/23/2016	6/23/2016	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788	16-06-1788	16-06-1788
2-CHLORONAPHTHALENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2-CHLOROPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2-METHYLNAPHTHALENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2-METHYLPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2-NITROANILINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
2-NITROPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
3,3'-DICHLOROBENZIDINE		--	mg/kg	ND (<10)	ND (<10)	ND (<190)	ND (<200)	ND (<200)
3/4-METHYLPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
3-NITROANILINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
4,6-DINITRO-2-METHYLPHENOL		--	mg/kg	ND (<2.5)	ND (<2.5)	ND (<49)	ND (<50)	ND (<50)
4-BROMOPHENYL-PHENYLETHER		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
4-CHLORO-3-METHYLPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
4-CHLOROANILINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
4-CHLOROPHENYL-PHENYLETHER		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
4-NITROANILINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
4-NITROPHENOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
ACENAPHTHENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
ACENAPHTHYLENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
ANILINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
ANTHRACENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
AZOBENZENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
BENZIDINE		--	mg/kg	ND (<10)	ND (<10)	ND (<190)	ND (<200)	ND (<200)
BENZO(A)ANTHRACENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
BENZO(A)PYRENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
BENZO(B)FLUORANTHENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
BENZO(G,H,I)PERYLENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
BENZO(K)FLUORANTHENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
BENZOIC ACID	250,000 / 3,300,000	--	mg/kg	7.6	ND (<2.5)	ND (<49)	ND (<50)	ND (<50)
BENZYL ALCOHOL		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
BIS(2-CHLOROETHOXY)METHANE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
Bis(2-chloroethyl)ether		--	mg/kg	ND (<2.5)	ND (<2.5)	ND (<49)	ND (<50)	ND (<50)
BIS(2-CHLOROISOPROPYL)ETHER		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	mg/kg	5.6	4.5	22	60	58
Butylbenzylphthalate		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
CHRYSENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
DIBENZ(A,H)ANTHRACENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
DIBENZOFURAN		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
Diethylphthalate		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
Dimethylphthalate		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
DI-N-BUTYL PHTHALATE	--	--	mg/kg	ND (<0.5)	0.65	ND (<9.7)	15	ND (<9.9)
DI-N-OCTYL PHTHALATE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
FLUORANTHENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
FLUORENE	4,700 / 70,000	--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
HEXACHLOROBENZENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
HEXACHLOROBUTADIENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
HEXACHLOROCYCLOPENTADIENE		--	mg/kg	ND (<2.5)	ND (<2.5)	ND (<49)	ND (<50)	ND (<50)

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-ASH-004	MWF-Sre-ASH-005	MWF-Sre-ASH-006	MWF-Sre-Debris-029	MWF-Sre-Debris-030
			Sample Date:	6/23/2016	6/23/2016	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788	16-06-1788	16-06-1788
HEXACHLOROETHANE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
INDENO(1,2,3-CD)PYRENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
ISOPHORONE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	16	ND (<9.9)
NAPHTHALENE	--	--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
NITROBENZENE		--	mg/kg	ND (<2.5)	ND (<2.5)	ND (<49)	ND (<50)	ND (<50)
N-NITROSODIMETHYLAMINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
N-NITROSO-DI-N-PROPYLAMINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
N-NITROSODIPHENYLAMINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
PENTACHLOROPHENOL		--	mg/kg	ND (<2.5)	ND (<2.5)	ND (<49)	ND (<50)	ND (<50)
PHENANTHRENE	--	--	mg/kg	ND (<0.5)	ND (<0.5)	12	ND (<9.9)	ND (<9.9)
PHENOL	19,000 / 250,000	--	mg/kg	1	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
PYRENE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
PYRIDINE		--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<9.7)	ND (<9.9)	ND (<9.9)
Dioxins / Furans / SW846-8290A								
1,2,3,4,6,7,8-Heptachlorodibenzofuran		--	ng/kg	427	101	614	52.9	211
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		--	ng/kg	625	127	599	164	291
1,2,3,4,7,8,9-Heptachlorodibenzofuran		--	ng/kg	75.1	21.4	72.6	ND (<4.84)	ND (<35.7)
1,2,3,4,7,8-Hexachlorodibenzofuran		--	ng/kg	127	42	351	ND (<4.84)	40.2
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		--	ng/kg	34.1	10.1	139	ND (<4.84)	ND (<35.7)
1,2,3,6,7,8-Hexachlorodibenzofuran		--	ng/kg	101	46.3	324	6.23	39
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		--	ng/kg	77.5	18.7	166	8.9	ND (<35.7)
1,2,3,7,8,9-Hexachlorodibenzofuran		--	ng/kg	49.8	20.5	83	ND (<4.84)	ND (<35.7)
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		--	ng/kg	61.3	15.4	144	6.24	ND (<35.7)
1,2,3,7,8-Pentachlorodibenzofuran		--	ng/kg	63	55.7	271	ND (<4.84)	ND (<35.7)
1,2,3,7,8-Pentachlorodibenzo-p-dioxin		--	ng/kg	40.2	12.2	233	ND (<4.84)	ND (<35.7)
2,3,4,6,7,8-Hexachlorodibenzofuran		--	ng/kg	121	41.4	289	9.36	56
2,3,4,7,8-Pentachlorodibenzofuran		--	ng/kg	103	65.5	437	7.86	41.6
2,3,7,8-Tetrachlorodibenzofuran		--	ng/kg	60.4	33.2	219	2.3	9.22
2,3,7,8-Tetrachlorodibenzo-p-dioxin		--	ng/kg	10.9	2.36	51.8	ND (<0.967)	ND (<7.14)
Octachlorodibenzofuran (OCDF)		--	ng/kg	477	77.7	198	92.7	279
Octachlorodibenzo-p-dioxin (OCDD)		--	ng/kg	1,340	228	530	1,320	2,910

Notes:
Bold results exceed applicable limits for characteristic hazardous wastes
ND (<X) = constituents(s) not detected at or above method detection limit
mg/kg = milligram per kilogram
µg/kg = microgram per kilogram
ng/kg = nanogram per kilogram
mg/L = milligram per liter
**** = excludes barium sulfate
Q = Estimated Maximum Possible Concentration

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID: / Sample Date: / Laboratory Job Number:	MWF-Sre-Debris-031 / 6/23/2016 / 16-06-1788	MWF-Sre-Debris-032 / 6/23/2016 / 16-06-1788	MWF-Sre-Powder-001 / 6/23/2016 / 16-06-1788	MWF-Sre-Powder-002 / 6/23/2016 / 16-06-1788	MWF-Sre-Soil-003 / 6/23/2016 / 16-06-1788
Total Metals / SW846-6010B / 7471A								
Aluminum	77,000 / 1,100,000	--	mg/kg	ND (<0.15)	ND (<0.1)	1.52	118	ND (<0.15)
Antimony	31 / 470	500	mg/kg	52.6	5.02	3.32	1.1	63.9
Arsenic	0.68 / 3.0	500	mg/kg	**842**	12.2	264	ND (<0.1)	4.15
Barium ****	15,000 / 220,000	10,000	mg/kg	ND (<0.1)	23.8	3.07	ND (<0.15)	ND (<0.1)
Beryllium	160 / 2,300	75	mg/kg	3.99	ND (<0.518)	0.379	21.2	ND (<0.15)
Cadmium	71 / 980	100	mg/kg	**5,190**	**37,500**	**34,400**	**1,360**	**1,210**
Calcium	--	--	mg/kg	53.4	40.5	ND (<0.15)	0.11	ND (<0.1)
Chromium	120,000 / 1,800,000	500	mg/kg	1.87	51.1	15.5	ND (<0.15)	**36,800**
Cobalt	23 / 350	8,000	mg/kg	6,180	230	396	0.64	228
Copper	3,100 / 47,000	2,500	mg/kg	0.886	0.393	1.17	ND (<0.1)	0.239
Iron	--	--	mg/kg	30.4	ND (<0.15)	305,000	11,000	750
Lead	400 / 800	1,000	mg/kg	0.553	ND (<1)	0.142	**1,300**	2.13
Magnesium	--	--	mg/kg	ND (<0.15)	4.93	0.132	0.438	196
Manganese	1,800 / 26,000	--	mg/kg	ND (<0.05)	ND (<0.15)	0.144	243	2.21
Mercury	11 / 46	20	mg/kg	2.94	**329**	6.35	**2,170**	**1,500**
Nickel	840 / 12,000	2,000	mg/kg	ND (<0.781)	ND (<0.739)	ND (<0.743)	ND (<0.728)	ND (<0.765)
Potassium	--	--	mg/kg	140	1.24	ND (<0.15)	ND (<0.15)	ND (<0.1)
Selenium	390 / 5,800	100	mg/kg	**1,340**	**610**	**3,470**	**1,350**	**178**
Silver	390 / 5,800	500	mg/kg	34.8	6.54	26.9	**9,110**	**6,630**
Sodium	--	--	mg/kg	ND (<2.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)	ND (<0.5)
Thallium	0.78 / 12	700	mg/kg	ND (<2.5)	ND (<0.5)	ND (<10)	ND (<0.5)	ND (<0.5)
Vanadium	390 / 5,800	2,400	mg/kg	ND (<9.7)	ND (<9.7)	ND (<9.7)	ND (<9.7)	ND (<9.7)
Zinc	23,000 / 350,000	5,000	mg/kg	ND (<9.7)	ND (<9.9)	ND (<50)	ND (<9.9)	ND (<9.9)
STLC Metals / SW846-6010B (T22.11.5.AII)								
Aluminum	--	--	mg/L	378	171	75.7	177	463
Antimony	--	15	mg/L	2.15	5.1	2.24	0.166	3.01
Arsenic	--	5	mg/L	0.185	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Barium	--	100	mg/L	5.97	7.46	1.17	0.137	4.93
Beryllium	--	0.75	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.201	0.132
Cadmium	--	1	mg/L	18.2	1.71	0.239	ND (<0.1)	0.438
Calcium	--	--	mg/L	1,080	1,210	1,100	27.3	196
Chromium	--	5	mg/L	1.98	0.966	0.853	0.193	1.89
Cobalt	--	80	mg/L	0.766	0.823	0.625	ND (<0.1)	0.84
Copper	--	25	mg/L	0.559	2.95	5.16	0.553	0.441
Iron	--	--	mg/L	457	396	125	23	441
Lead	--	5	mg/L	**45.9**	**33.4**	2.76	0.236	**6.94**
Magnesium	--	--	mg/L	210	454	1,510	2,250	1,760
Manganese	--	--	mg/L	7.93	6.74	7.83	9.7	11.8
Nickel	--	20	mg/L	1.87	2.06	10.2	0.209	1.6
Potassium	--	--	mg/L	51.1	57.9	30.4	148	116
Selenium	--	1	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Silver	--	5	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)
Thallium	--	7	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Vanadium	--	24	mg/L	0.363	0.207	0.18	ND (<0.1)	0.144
Zinc	--	250	mg/L	167	140	135	6.95	243

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

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Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Src-Debris-031	MWF-Src-Debris-032	MWF-Src-Powder-001	MWF-Src-Powder-002	MWF-Src-Soil-003
			Sample Date:	6/23/2016	6/23/2016	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788	16-06-1788	16-06-1788
TCLP Metals / SW846-6010B (1311)								
Aluminum	--	--	mg/L	40.5	2.32	0.886	13.9	2.68
Antimony	--	--	mg/L	ND (<0.15)	0.474	0.393	ND (<0.15)	0.169
Arsenic	--	5	mg/L	0.11	ND (<0.1)	0.131	ND (<0.1)	ND (<0.1)
Barium	--	100	mg/L	1.73	1.59	ND (<1)	ND (<1)	2.4
Beryllium	--	--	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
Cadmium	--	1	mg/L	3.73	0.441	ND (<0.1)	ND (<0.1)	ND (<0.1)
Calcium	--	--	mg/L	312	529	1,300	15.9	74.7
Chromium	--	5	mg/L	0.17	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
Cobalt	--	--	mg/L	0.126	0.144	ND (<0.1)	ND (<0.1)	ND (<0.1)
Copper	--	--	mg/L	0.775	0.188	0.43	0.471	0.247
Iron	--	--	mg/L	96.1	18.6	ND (<1)	ND (<1)	1.06
Lead	--	5	mg/L	2.06	0.64	0.316	0.142	0.755
Magnesium	--	--	mg/L	71.7	228	576	1,300	612
Manganese	--	--	mg/L	2.29	1.78	0.695	2.13	2.4
Nickel	--	--	mg/L	0.32	0.328	0.971	ND (<0.1)	ND (<0.1)
Potassium	--	--	mg/L	15.5	21.6	15.6	63.1	44.9
Selenium	--	1	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Silver	--	5	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)
Thallium	--	--	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)	ND (<0.15)
Vanadium	--	--	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)
Zinc	--	--	mg/L	85.7	35.6	1.34	1.9	2.21
PCBs / SW846-8082								
Aroclor 1016	4,100 / 27,000	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	ND (<980)
Aroclor 1221	200 / 830	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	ND (<980)
Aroclor 1232	170 / 720	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	ND (<980)
Aroclor 1242	230 / 950	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	640,000
Aroclor 1248	230 / 950	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	ND (<980)
Aroclor 1254	240 / 970	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	ND (<980)
Aroclor 1260	240 / 990	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	ND (<980)
Aroclor 1262	--	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	ND (<980)
Aroclor 1268	--	--	µg/kg	ND (<990)	ND (<980)	ND (<50)	ND (<990)	ND (<980)
SVOCs / SW846-8270C								
1,2,4-TRICHLOROBENZENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
1,2-DICHLOROBENZENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
1,3-DICHLOROBENZENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
1,4-DICHLOROBENZENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
1-METHYLNAPHTHALENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2,4,5-TRICHLOROPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2,4,6-TRICHLOROPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2,4-DICHLOROPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2,4-DIMETHYLPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2,4-DINITROPHENOL		--	mg/kg	ND (<50)	ND (<49)	ND (<13)	ND (<49)	ND (<50)
2,4-DINITROTOLUENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2,6-DICHLOROPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2,6-DINITROTOLUENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-Debris-031	MWF-Sre-Debris-032	MWF-Sre-Powder-001	MWF-Sre-Powder-002	MWF-Sre-Soil-003
			Sample Date:	6/23/2016	6/23/2016	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788	16-06-1788	16-06-1788
2-CHLORONAPHTHALENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2-CHLOROPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2-METHYLNAPHTHALENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2-METHYLPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2-NITROANILINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
2-NITROPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
3,3'-DICHLOROBENZIDINE		--	mg/kg	ND (<200)	ND (<190)	ND (<50)	ND (<190)	ND (<200)
3/4-METHYLPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
3-NITROANILINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
4,6-DINITRO-2-METHYLPHENOL		--	mg/kg	ND (<50)	ND (<49)	ND (<13)	ND (<49)	ND (<50)
4-BROMOPHENYL-PHENYLETHER		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
4-CHLORO-3-METHYLPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
4-CHLOROANILINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
4-CHLOROPHENYL-PHENYLETHER		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
4-NITROANILINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
4-NITROPHENOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
ACENAPHTHENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
ACENAPHTHYLENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	18
ANILINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
ANTHRACENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
AZOBENZENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
BENZIDINE		--	mg/kg	ND (<200)	ND (<190)	ND (<50)	ND (<190)	ND (<200)
BENZO(A)ANTHRACENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
BENZO(A)PYRENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
BENZO(B)FLUORANTHENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
BENZO(G,H,I)PERYLENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
BENZO(K)FLUORANTHENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
BENZOIC ACID	250,000 / 3,300,000	--	mg/kg	ND (<50)	ND (<49)	ND (<13)	ND (<49)	ND (<50)
BENZYL ALCOHOL		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
BIS(2-CHLOROETHOXY)METHANE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
Bis(2-chloroethyl)ether		--	mg/kg	ND (<50)	ND (<49)	ND (<13)	ND (<49)	ND (<50)
BIS(2-CHLOROISOPROPYL)ETHER		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	mg/kg	120	98	13	ND (<9.7)	87
Butylbenzylphthalate		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
CHRYSENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
DIBENZ(A,H)ANTHRACENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
DIBENZOFURAN		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
Diethylphthalate		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
Dimethylphthalate		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
DI-N-BUTYL PHTHALATE	--	--	mg/kg	ND (<9.9)	33	3.5	ND (<9.7)	ND (<9.9)
DI-N-OCTYL PHTHALATE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
FLUORANTHENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
FLUORENE	4,700 / 70,000	--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	14
HEXACHLOROBENZENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
HEXACHLOROBUTADIENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
HEXACHLOROCYCLOPENTADIENE		--	mg/kg	ND (<50)	ND (<49)	ND (<13)	ND (<49)	ND (<50)

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-Debris-031	MWF-Sre-Debris-032	MWF-Sre-Powder-001	MWF-Sre-Powder-002	MWF-Sre-Soil-003
			Sample Date:	6/23/2016	6/23/2016	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788	16-06-1788	16-06-1788
HEXACHLOROETHANE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
INDENO(1,2,3-CD)PYRENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
ISOPHORONE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
NAPHTHALENE	--	--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	32
NITROBENZENE		--	mg/kg	ND (<50)	ND (<49)	ND (<13)	ND (<49)	ND (<50)
N-NITROSODIMETHYLAMINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
N-NITROSO-DI-N-PROPYLAMINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
N-NITROSODIPHENYLAMINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
PENTACHLOROPHENOL		--	mg/kg	ND (<50)	ND (<49)	ND (<13)	ND (<49)	ND (<50)
PHENANTHRENE	--	--	mg/kg	ND (<9.9)	ND (<9.7)	2.5	ND (<9.7)	27
PHENOL	19,000 / 250,000	--	mg/kg	ND (<9.9)	ND (<9.7)	3.1	ND (<9.7)	19
PYRENE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
PYRIDINE		--	mg/kg	ND (<9.9)	ND (<9.7)	ND (<2.5)	ND (<9.7)	ND (<9.9)
Dioxins / Furans / SW846-8290A								
1,2,3,4,6,7,8-Heptachlorodibenzofuran		--	ng/kg	859	1,030	7.71	ND (<4.96)	318
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		--	ng/kg	272	360	6.03	ND (<4.96)	434
1,2,3,4,7,8,9-Heptachlorodibenzofuran		--	ng/kg	202	278	ND (<4.99)	ND (<4.96)	49.1 Q
1,2,3,4,7,8-Hexachlorodibenzofuran		--	ng/kg	326	435	ND (<4.99)	ND (<4.96)	91.5
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		--	ng/kg	15.3 Q	27.8 Q	ND (<4.99)	ND (<4.96)	ND (<48.1)
1,2,3,6,7,8-Hexachlorodibenzofuran		--	ng/kg	412	529	ND (<4.99)	ND (<4.96)	79.5
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		--	ng/kg	30.7	53.5	ND (<4.99)	ND (<4.96)	ND (<48.1)
1,2,3,7,8,9-Hexachlorodibenzofuran		--	ng/kg	166	201	ND (<4.99)	ND (<4.96)	ND (<48.1)
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		--	ng/kg	25.5 Q	43.7	ND (<4.99)	ND (<4.96)	ND (<48.1)
1,2,3,7,8-Pentachlorodibenzofuran		--	ng/kg	358	468	ND (<4.99)	ND (<4.96)	56.8
1,2,3,7,8-Pentachlorodibenzo-p-dioxin		--	ng/kg	19.9	36.8	ND (<4.99)	ND (<4.96)	ND (<48.1)
2,3,4,6,7,8-Hexachlorodibenzofuran		--	ng/kg	376	457	ND (<4.99)	ND (<4.96)	105
2,3,4,7,8-Pentachlorodibenzofuran		--	ng/kg	356	624	ND (<4.99)	ND (<4.96)	135
2,3,7,8-Tetrachlorodibenzofuran		--	ng/kg	167	216	1.12	ND (<0.991)	54.7
2,3,7,8-Tetrachlorodibenzo-p-dioxin		--	ng/kg	5.32	9.03	ND (<0.998)	ND (<0.991)	ND (<9.62)
Octachlorodibenzofuran (OCDF)		--	ng/kg	539	672	ND (<9.98)	ND (<9.91)	306
Octachlorodibenzo-p-dioxin (OCDD)		--	ng/kg	1,310	1,160	ND (<9.98)	11.3	1,400

Notes:
Bold results exceed applicable limits for characteristic hazardous wastes
ND (<X) = constituents(s) not detected at or above method detection limit
mg/kg = milligram per kilogram
µg/kg = microgram per kilogram
ng/kg = nanogram per kilogram
mg/L = milligram per liter
**** = excludes barium sulfate
Q = Estimated Maximum Possible Concentration

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-Soil-026	MWF-Sre-Soil-027	MWF-Sre-Soil-028
			Sample Date:	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788
Total Metals / SW846-6010B / 7471A						
Aluminum	77,000 / 1,100,000	--	mg/kg	ND (<0.1)	16.3	ND (<0.1)
Antimony	31 / 470	500	mg/kg	ND (<0.15)	ND (<0.05)	ND (<0.15)
Arsenic	0.68 / 3.0	500	mg/kg	25.8	1.92	8.34
Barium ****	15,000 / 220,000	10,000	mg/kg	1.28	0.907	1,100
Beryllium	160 / 2,300	75	mg/kg	ND (<0.05)	**4,370**	**927**
Cadmium	71 / 980	100	mg/kg	**218**	**136**	**237**
Calcium	--	--	mg/kg	18.2	1,080	1.98
Chromium	120,000 / 1,800,000	500	mg/kg	**87,300**	291	**5,190**
Cobalt	23 / 350	8,000	mg/kg	6,560	4,670	0.328
Copper	3,100 / 47,000	2,500	mg/kg	1,100	0.853	0.625
Iron	--	--	mg/kg	6,960	4,320	4,840
Lead	400 / 800	1,000	mg/kg	0.209	ND (<0.1)	63.1
Magnesium	--	--	mg/kg	1.89	0.84	0.441
Manganese	1,800 / 26,000	--	mg/kg	1.45	0.21	0.107
Mercury	11 / 46	20	mg/kg	**1,110**	**2,020**	ND (<0.05)
Nickel	840 / 12,000	2,000	mg/kg	ND (<0.758)	ND (<0.777)	ND (<7.39)
Potassium	--	--	mg/kg	ND (<1)	ND (<0.1)	ND (<0.1)
Selenium	390 / 5,800	100	mg/kg	ND (<0.15)	**681**	**747**
Silver	390 / 5,800	500	mg/kg	**2,690**	**781**	ND (<0.5)
Sodium	--	--	mg/kg	ND (<0.5)	ND (<0.5)	ND (<0.5)
Thallium	0.78 / 12	700	mg/kg	ND (<0.5)	ND (<0.5)	ND (<2.5)
Vanadium	390 / 5,800	2,400	mg/kg	ND (<9.7)	ND (<9.7)	ND (<9.7)
Zinc	23,000 / 350,000	5,000	mg/kg	ND (<9.9)	ND (<9.9)	ND (<50)
STLC Metals / SW846-6010B (T22.11.5.AII)						
Aluminum	--	--	mg/L	143	148	1.24
Antimony	--	15	mg/L	1.56	4.96	ND (<0.15)
Arsenic	--	5	mg/L	0.229	ND (<0.15)	ND (<0.15)
Barium	--	100	mg/L	3.6	17.9	0.143
Beryllium	--	0.75	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)
Cadmium	--	1	mg/L	0.395	0.569	ND (<0.1)
Calcium	--	--	mg/L	1,760	1,260	9.82
Chromium	--	5	mg/L	0.766	0.302	ND (<0.1)
Cobalt	--	80	mg/L	0.335	0.717	ND (<0.1)
Copper	--	25	mg/L	0.308	0.143	0.205
Iron	--	--	mg/L	238	94.5	1.78
Lead	--	5	mg/L	2.94	2.51	0.222
Magnesium	--	--	mg/L	329	2,030	8.01
Manganese	--	--	mg/L	6.35	7.08	0.0608
Nickel	--	20	mg/L	0.844	0.785	0.211
Potassium	--	--	mg/L	36.1	94.4	7.8
Selenium	--	1	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)
Silver	--	5	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)
Thallium	--	7	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)
Vanadium	--	24	mg/L	0.416	0.169	ND (<0.1)
Zinc	--	250	mg/L	70.2	140	2.72

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID: / Sample Date: / Laboratory Job Number:	MWF-Sre-Soil-026 / 6/23/2016 / 16-06-1788	MWF-Sre-Soil-027 / 6/23/2016 / 16-06-1788	MWF-Sre-Soil-028 / 6/23/2016 / 16-06-1788
TCLP Metals / SW846-6010B (1311)						
Aluminum	--	--	mg/L	1.45	1.59	ND (<0.5)
Antimony	--	--	mg/L	0.21	ND (<0.15)	ND (<0.15)
Arsenic	--	5	mg/L	0.107	ND (<0.1)	ND (<0.1)
Barium	--	100	mg/L	1.01	ND (<1)	ND (<1)
Beryllium	--	--	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)
Cadmium	--	1	mg/L	0.2	ND (<0.1)	ND (<0.1)
Calcium	--	--	mg/L	943	216	6.23
Chromium	--	5	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)
Cobalt	--	--	mg/L	0.123	ND (<0.1)	ND (<0.1)
Copper	--	--	mg/L	0.284	0.206	0.105
Iron	--	--	mg/L	1.43	ND (<1)	ND (<1)
Lead	--	5	mg/L	0.461	0.431	ND (<0.1)
Magnesium	--	--	mg/L	147	237	3.02
Manganese	--	--	mg/L	1.43	0.06	ND (<0.05)
Nickel	--	--	mg/L	0.159	ND (<0.1)	ND (<0.1)
Potassium	--	--	mg/L	15.3	39	ND (<5)
Selenium	--	1	mg/L	0.161	ND (<0.15)	ND (<0.15)
Silver	--	5	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)
Thallium	--	--	mg/L	ND (<0.15)	ND (<0.15)	ND (<0.15)
Vanadium	--	--	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)
Zinc	--	--	mg/L	19.2	0.783	1.82
PCBs / SW846-8082						
Aroclor 1016	4,100 / 27,000	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
Aroclor 1221	200 / 830	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
Aroclor 1232	170 / 720	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
Aroclor 1242	230 / 950	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
Aroclor 1248	230 / 950	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
Aroclor 1254	240 / 970	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
Aroclor 1260	240 / 990	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
Aroclor 1262	--	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
Aroclor 1268	--	--	µg/kg	ND (<200)	ND (<1,000)	ND (<200)
SVOCs / SW846-8270C						
1,2,4-TRICHLOROBENZENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
1,2-DICHLOROBENZENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
1,3-DICHLOROBENZENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
1,4-DICHLOROBENZENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
1-METHYLNAPHTHALENE		--	mg/kg	ND (<10)	ND (<9.8)	2.6
2,4,5-TRICHLOROPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2,4,6-TRICHLOROPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2,4-DICHLOROPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2,4-DIMETHYLPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2,4-DINITROPHENOL		--	mg/kg	ND (<50)	ND (<49)	ND (<10)
2,4-DINITROTOLUENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2,6-DICHLOROPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2,6-DINITROTOLUENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-Soil-026	MWF-Sre-Soil-027	MWF-Sre-Soil-028
			Sample Date:	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788
2-CHLORONAPHTHALENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2-CHLOROPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2-METHYLNAPHTHALENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2-METHYLPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2-NITROANILINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
2-NITROPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
3,3'-DICHLOROBENZIDINE		--	mg/kg	ND (<200)	ND (<200)	ND (<40)
3/4-METHYLPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
3-NITROANILINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
4,6-DINITRO-2-METHYLPHENOL		--	mg/kg	ND (<50)	ND (<49)	ND (<10)
4-BROMOPHENYL-PHENYLETHER		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
4-CHLORO-3-METHYLPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
4-CHLOROANILINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
4-CHLOROPHENYL-PHENYLETHER		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
4-NITROANILINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
4-NITROPHENOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
ACENAPHTHENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
ACENAPHTHYLENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
ANILINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
ANTHRACENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
AZOBENZENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
BENZIDINE		--	mg/kg	ND (<200)	ND (<200)	ND (<40)
BENZO(A)ANTHRACENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
BENZO(A)PYRENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
BENZO(B)FLUORANTHENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
BENZO(G,H,I)PERYLENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
BENZO(K)FLUORANTHENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
BENZOIC ACID	250,000 / 3,300,000	--	mg/kg	ND (<50)	ND (<49)	51
BENZYL ALCOHOL		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
BIS(2-CHLOROETHOXY)METHANE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
Bis(2-chloroethyl)ether		--	mg/kg	ND (<50)	ND (<49)	ND (<10)
BIS(2-CHLOROISOPROPYL)ETHER		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
BIS(2-ETHYLHEXYL)PHTHALATE	--	--	mg/kg	39	73	110
Butylbenzylphthalate		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
CHRYSENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
DIBENZ(A,H)ANTHRACENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
DIBENZOFURAN		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
Diethylphthalate		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
Dimethylphthalate		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
DI-N-BUTYL PHTHALATE	--	--	mg/kg	13	ND (<9.8)	ND (<2)
DI-N-OCTYL PHTHALATE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
FLUORANTHENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
FLUORENE	4,700 / 70,000	--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
HEXACHLOROBENZENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
HEXACHLOROBUTADIENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
HEXACHLOROCYCLOPENTADIENE		--	mg/kg	ND (<50)	ND (<49)	ND (<10)

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Table 8
Split Sample Analytical Results
Fruitland Magnesium Fire
Maywood, Los Angeles County, California

Parameters	Regional Screening Level (Residential / Industrial)	Applicable Screening Limits (TCLP, STLC, TTLC)	Field Sample ID:	MWF-Sre-Soil-026	MWF-Sre-Soil-027	MWF-Sre-Soil-028
			Sample Date:	6/23/2016	6/23/2016	6/23/2016
			Laboratory Job Number:	16-06-1788	16-06-1788	16-06-1788
HEXACHLOROETHANE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
INDENO(1,2,3-CD)PYRENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
ISOPHORONE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
NAPHTHALENE	--	--	mg/kg	ND (<10)	ND (<9.8)	5.7
NITROBENZENE		--	mg/kg	ND (<50)	ND (<49)	ND (<10)
N-NITROSODIMETHYLAMINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
N-NITROSO-DI-N-PROPYLAMINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
N-NITROSODIPHENYLAMINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
PENTACHLOROPHENOL		--	mg/kg	ND (<50)	ND (<49)	ND (<10)
PHENANTHRENE	--	--	mg/kg	ND (<10)	ND (<9.8)	2.4
PHENOL	19,000 / 250,000	--	mg/kg	ND (<10)	ND (<9.8)	10
PYRENE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
PYRIDINE		--	mg/kg	ND (<10)	ND (<9.8)	ND (<2)
Dioxins / Furans / SW846-8290A						
1,2,3,4,6,7,8-Heptachlorodibenzofuran		--	ng/kg	174	555	1,280
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin		--	ng/kg	71.1	536	1,520
1,2,3,4,7,8,9-Heptachlorodibenzofuran		--	ng/kg	47.3	126	110
1,2,3,4,7,8-Hexachlorodibenzofuran		--	ng/kg	74.7	202	154
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin		--	ng/kg	ND (<4.91)	30.6	26.9
1,2,3,6,7,8-Hexachlorodibenzofuran		--	ng/kg	91.1	235	137
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin		--	ng/kg	8.99	61.8	70.3
1,2,3,7,8,9-Hexachlorodibenzofuran		--	ng/kg	34.8	93.3	45.8
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin		--	ng/kg	6.66	47.4	50.2
1,2,3,7,8-Pentachlorodibenzofuran		--	ng/kg	84.8	240	57.1
1,2,3,7,8-Pentachlorodibenzo-p-dioxin		--	ng/kg	6.04	37.4	19
2,3,4,6,7,8-Hexachlorodibenzofuran		--	ng/kg	78.2	208	163
2,3,4,7,8-Pentachlorodibenzofuran		--	ng/kg	120	273	94.9
2,3,7,8-Tetrachlorodibenzofuran		--	ng/kg	42.1	157	30.5
2,3,7,8-Tetrachlorodibenzo-p-dioxin		--	ng/kg	1.56	8.22	3.84
Octachlorodibenzofuran (OCDF)		--	ng/kg	100	486	1,640
Octachlorodibenzo-p-dioxin (OCDD)		--	ng/kg	317	1,860	8970 J

Notes:
Bold results exceed applicable limits for characteristic hazardous wastes
ND (<X) = constituents(s) not detected at or above method detection limit
mg/kg = milligram per kilogram
µg/kg = microgram per kilogram
ng/kg = nanogram per kilogram
mg/L = milligram per liter
**** = excludes barium sulfate
Q = Estimated Maximum Possible Concentration

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Attachment C: Request for a Time Critical Removal Action the Fruitland Magnesium Fire Site, July 1, 2016