

STATE OF NEW MEXICO  
Before the  
ALBUQUERQUE-BERNALILLO COUNTY  
AIR QUALITY CONTROL BOARD

IN THE MATTER OF THE PETITION  
FOR A HEARING ON THE MERITS  
REGARDING AIR QUALITY PERMIT  
NO. 3131

AQCB No. 2014-4

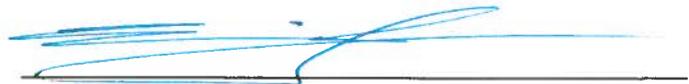
Southwest Organizing Project  
By Juan Reynosa, Environmental Justice Organizer  
Esther and Steven Abeyta  
Petitioners

PETITIONERS' NOTICE OF RECORD SUPPLEMENTATION

Petitioners hereby provide notice, pursuant to the Hearing Officer's November 15, 2015 Revised Scheduling Order, that they are supplementing the Administrative Record in the above-captioned matter with the Affidavit of Juan F. Reynosa and included attachments thereto.

Dated: November 23, 2015

NEW MEXICO  
ENVIRONMENTAL LAW CENTER



Eric Jantz  
Jonathan Block  
New Mexico Environmental Law Center  
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Attorneys for Petitioners

## CERTIFICATE OF SERVICE

I hereby certify that on this 23<sup>rd</sup> day of November, 2015, I have hand delivered or placed a copy of the foregoing pleading in the above-captioned case in the US Mail, First Class to the following:

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c/o Andrew Daffern  
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By:





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**AFFIDAVIT OF JUAN F. REYNOSA**

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I, Juan F. Reynosa, based upon my personal knowledge and belief, state:

1. I am currently employed as an Environmental Justice Organizer at the SouthWest Organizing Project (SWOP), located at 211 10th Street SW, Albuquerque, New Mexico 87102. I have been employed by SWOP for four and a half years. My employment responsibilities include: working with underrepresented communities facing environmental justice issues, creating coalitions around environmental issues, working with community leaders and elected officials to create positive policy changes for community, researching issues, and assisting with general SWOP organizing work. My complete resume is attached as Attachment 1.

2. The SouthWest Organizing Project has a long history of working with low-income, communities of color who face environmental justice issues. The residents of the San Jose community in Albuquerque have been dealing with air and water contamination for decades, and the health of the residents has and continues to take a huge impact as a result of this. As a result of zoning changes in the area to M1 and M2 heavy industry, facilities like Honstein Petroleum are allowed to locate within residential neighborhoods, and emit large amount of volatile organize compounds (VOCs) and particulate matter, despite being right across the street from homes.

3. I attended a meeting, held by the U.S. Environmental Protection Agency, in the community of San Jose at the beginning of the year 2012. At that meeting, I heard numerous community members testify about the legacy of contamination in their community. The conversation wasn't limited to just the huge water contamination from Superfund sites, but

also the fact that community members' health was being severely impacted from the air pollution they experience. From that meeting, a relationship was built between SWOP and community members from San Jose. Esther Abeyta, who was the San Jose Neighborhood Association Chair at the time, and her husband Steven, quickly became community leaders who SWOP began to have deeper conversations with. During the spring of 2012, I participated in conversations with Mr. and Mrs. Abeyta about what issues their community was facing and what solutions SWOP could offer to help their community. The majority of these conversations centered on the environmental justice issues their community was facing, but also around issues of poverty and gang violence.

4. In July of 2012, SWOP began to work with New Mexican communities around the air quality environmental justice issues they were facing. SWOP worked out a plan to do a yearlong set of air quality samples in three communities: Mesquite, New Mexico, the San Jose Community in Albuquerque, and on the Navajo Nation in an area surrounding the Navajo Mine. The intention of doing a yearlong project would be to allow the project to take into account all of the seasonal impacts and variables that occur in communities during a year of sampling. Mesquite performed VOC bucket tests, the Navajo Nation community performed Mini-Vol particulate matter testing, and the San Jose community did a combination of both VOC and particulate matter testing.

5. SWOP established a relationship with Global Community Monitor (GCM), an organization in Oakland, California that does work worldwide on training communities to do community air monitoring, to assist with the air monitoring trainings. On its website, Global Community Monitor's describes itself as follows:

founded in 2001,[Global Community Monitor] trains and supports communities in the use of environmental monitoring tools to understand the impact of fossil fuel industry pollution on their health and the environment. GCM's work focuses on disempowered "fenceline" communities harmed by serious air pollution from industrial sources and whose concerns agencies and responsible corporations are ignoring. (<http://www.gcmonitor.org/about-us/>).

6. The three communities SWOP was working with were being ignored by agencies across the state who consistently ignored and continue to ignore their own mission statements to protect community, but rather tend to side with industry and using their tax funded jobs to assist industry. GCM brought with them years of experience in working with environmental justice communities across the globe, and much experience and knowledge in helping train these communities in EPA approved methods of collecting and submitting air samples.

7. The community of San Jose unfortunately has had M1 and M2 heavy industry zoning placed on them since the 1970s. This has led to this community (and nearby ones like Mountain View) having many instances of groundwater contamination (which has led to two Superfund sites in the area), an immense industry pollution presence right within their

community, and stark health impacts that has created the issue of San Jose having some of the highest rates in Bernalillo County of deaths from several health conditions. These large impacts made it necessary for community members to step up and take on this issue, especially when the agencies the community had been looking to for help only continued to back up industrial polluters. See, (<http://www.humanimpact.org/wp-content/uploads/Comment-letter-and-Full-HIA-Report.pdf>).

8. In the fall of 2012, SWOP and GCM hosted trainings in Albuquerque to get multiple residents from the San Jose community trained on how to do community air monitoring. At these trainings, residents learned how to construct a bucket<sup>1</sup>, obtain air samples, and send the samples off to a lab for testing. They also learned how to and the importance of filling out chain of custody forms for each sample. They learned how to take air quality logs that provided a narrative to their daily experience of being overburdened by pollution. We followed the training documents and protocols that are attached as Attachments 3-5. Samplers were told to look for times when odors from pollution were especially strong. At that time, they would take their bucket and an unused, lab approved sample bag with them to the sample location. Then they would then take the lid off the bucket, attach the bag to the inside of the bucket, and then reattach the lid. Samplers would then use a small suction device attached to the top of the lid to create a vacuum in the bucket, and after two minutes they removed a metal nut on the lid, which then allowed air to enter into the sample bag and thus a sample was taken. Samplers would continue to take the sample for approximately two minutes. After that, the sample bag was taken out, sealed, and put in a U.S. Postal Service overnight shipping box to be sent to an accredited lab. The labs used were Columbia Analytical Service (CAS) labs for the VOC samples and Chesterlab for the particulate samples. The samplers would also fill out a chain of custody form that noted the date and time of the sample, who took the sample, what the weather conditions were during the sampling period, and explanation of who took the sample and notations and signatures of people that the sample was in possession of. The only people in possession of the sample were the person who took the sample, the person at the mail office who took in the sealed and boxed sample for shipping, and the person at the lab who processed the sample. There were a couple of instances where I helped ship out the sample after it was taken. All training sessions followed the protocols designed and communicated by Global Community Monitor. During the trainings, I and other SWOP staff also worked with residents on a calendar of when samples should be taken and submitted to the lab. It was a very extensive training that provided each community member with all the steps needed to take a valid air sample.

9. A bucket brigade is a methodology of collecting air quality data that is community friendly and easy to do, yet still holds up to scientific standards. Community members keep logs of how the air near their homes smells day in and day out. During log collection community members took note of what type of smell they were smelling, what it smelt like, how the odor made them feel and if it made them feel sick, and finally the wind

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<sup>1</sup> "Buckets" are plastic containers that have been modified to allow collection of air samples. The buckets used in the San Jose sampling program followed the design described in Attachment 2.

direction and weather conditions at that moment. The use of these logs helped community members pinpoint certain odors they smelled on a regular basis, the time of the day that they were the strongest, and helped them make a determination of what area of their community the odor was coming from. Then community members would take an air sample using a bucket when they noticed a particularly strong smell or a different smell than usual. The sample would be then sent to a lab for analysis.

10. Beginning in the fall of 2012, community members of San Jose took monthly air samples until the fall of 2013. These samples mostly were taken with the buckets to detect VOCs, but there was an addition of particulate matter sampling towards the end of the campaign. Thus, SWOP also purchased a Mini-Vol monitor that community members later used to test for particulate matter. The Mini-Vol was made by AIRmetrics for SWOP in 2012. It is a Mini-Vol Tactical Air Sampler, Model No. S/N 6029. The unit was calibrated and maintained by AIRmetrics. From these samples, we were able to gather seven VOC samples from the buckets, and nine particulate matter samples. Because of resource limitations, SWOP and San Jose community members were unable to take an entire year's worth of VOC samples **and** particulate matter samples. SWOP and San Jose therefore made the conscious decision to discontinue VOC monitoring after a robust sample size had been gathered and complete the year of sampling with particulate matter samples. The results of these samples showed very high levels of Toluene and Chlorobenzene in the VOC samples, and high levels of elemental carbon (diesel soot) from the particulate matter samples. Community members did a single sample at the fence line of the Honstein facility for one of their VOC samples. I was present when this sample was taken and assisted with the shipping of the sample. The results of San Jose's sampling program are attached as Attachments 6-16. Attachments 6-16 include not only the sampling results, but also chain of custody documentation, and QA/QC measures. Pollution logs are attached as Attachment 17.

11. Prior to the community air sampling campaign in San Jose, on approximately April 26, 2012, community members living next to the Honstein facility began to complain about the strong fumes that were coming from the facility next to their home. They complained of getting headaches and feeling ill as a result of breathing in the fumes on a daily basis. One of these community members filed a complaint with the Albuquerque Air Quality Division (now the Environmental Health Department), thus forcing the division to pay a visit to the Honstein facility. When the Environmental Health Department visited the facility; they determined that the Honstein facility had been operating without an air permit, but they needed to apply for one. A copy of the complaint report is attached as Attachment 18.

12. The Honstein facility had been allowed to operate for decades without an air permit. Despite the community continuously asking for more air monitoring from the Air Quality Division right in the area of the Honstein facility; that request has not been fulfilled. Yet when community members took a VOC bucket sample outside of the Honstein facility; they came back with some of the highest levels of Toluene and Chlorobenzene within the sample set taken during the air monitoring campaign in San Jose. See, Attachment 9.

13. The results from our year-long monitoring project in San Jose yielded results that showed high levels of Toluene, Chlorobenzene, and elemental Carbon. These results support our hypothesis that the community of San Jose is and has been experiencing unsafe concentrations of air pollution in their community. It also supports our argument that multiple sources are causing this pollution, and thus why a cumulative impact analysis should be taken up by the Environmental Health Department when deciding whether or not to approve another air permit in an impacted community (like the Honstein air permit). SWOP's position that cumulative impacts should be considered is based partially upon and supported by a report by Dr. Mark Chernaik, attached as Attachment 19. Finally, it also supports our conclusion that facilities like Honstein should not be allowed to locate within a residential community and right across from homes, when they are emitting such a large amount of harmful pollutants in close proximity to homes.

**AFFIRMATION**

I declare under penalty of perjury that the foregoing is true and accurate to the best of my personal knowledge, information, and belief.



OFFICIAL SEAL  
ROBERTO ROIBAL  
NOTARY PUBLIC  
STATE OF NEW MEXICO

My Commission Expires 5/12/19

Juan Reynosa  
Juan Reynosa

Sworn and subscribed before me in Bernalillo County, the undersigned, a Notary Public in and for the State of New Mexico, on this 23<sup>rd</sup> day of November, 2015.

My Commission expires on 5/12/19.

Roberto Roibal  
Notary Public



# Juan Francisco Reynosa

[joowan1@gmail.com](mailto:joowan1@gmail.com)  
(505) 907-3788

312 Arno Rd. NE  
Albuquerque, NM 87102

## Career Objective

I plan on centering my career within the social justice movement in New Mexico in order to make positive change with impacted communities in my home state. I aim to continue to build my skill set and my leadership skills within the organizing movement in order to make a bigger impact. I'm passionate about engaging with low-income, communities of color in order to create victories on issues they've identified. And I'm committed to working hard for social justice in order to attain justice at the highest level achievable.

## Education

University of New Mexico (UNM)-Albuquerque, New Mexico, 2002-2006  
Bachelor's Degree of Environmental Science GPA 3.07  
Graduated May 2006

New Mexico Junior College (NMJC)-Hobbs, New Mexico, 2000-2002  
Associate's Degree in Science (emphasis on Chemistry and Math)  
GPA 3.75

## Work Experience

SouthWest Organizing Project – Environmental Justice Organizer – June 2011 to present

- Conducting a state-wide air quality campaign that engages three communities in the state of New Mexico. Developed campaign plan for this year long campaign, as well as helped craft grant reports to Kresge. I crafted and maintained the budget for the campaign which was \$191,000 in total. Other duties include helping to provide the technical training to community members, producing air quality legislation that was pushed during the 2013 Legislative session and to ABQ Air Quality Control Board, working with community members to use data collected to create positive community change, and worked in coalition with other organizations on community level organizing and regulatory change.
- Worked with a state consortia project funded by the EPA to help build the capacity and networks of environmental educators in central New Mexico. Assisted with budget creation on this project.
- Participate in national and international coalitions that build on racial and environmental equity campaigns. Examples include the South by SouthWest Experiment and Grassroots Global Justice.
- Work with youth in a variety of mentorship roles, from working with youth in mentorships and leadership trainings to assisting high school students with their senior year projects that are based on environmental issues.
- Have worked on a variety of membership-based activities in order to grow out our membership and their level of engagement at the organization.
- Engaged in creating campaign plans, power maps, and strategic plans for organization campaigns.
- Assist in working with funders of SWOP, some of which include Kresge, Solidago, and Kellogg.
- Assisted with lobbying for other SWOP campaigns at the State Legislative Session.
- Have assisted with multiple other SWOP campaigns including the food justice and youth campaigns, as well as big events like Tierra del Sol.

Attachment 1

#### Sierra Club- Associate -Field Organizer- November 2010 to June 2011

- Organized around proposed EPA Clean Air regulations for coal plants in the Four Corners region of New Mexico. Duties included organizing online and on the ground to get hundreds of comments submitted to the EPA, establish relationships and worked in coalition with partner groups on coal issue (including Diné CARE, San Juan Citizens Alliance, New Energy Economy, Asthma Allies, etc), and then did outreach and education to communities on the Navajo reservation and Four Corners region around health impacts of coal emissions
- Worked with chapter in Albuquerque region to recruit more members to engage them and existing members into more of the local and national initiatives. I worked with State chapter to do strategic planning for the year.
- Recruited and worked on a weekly basis with a youth intern in Albuquerque. I also worked with managing multiple volunteers on a regular basis.
- Formulated campaign plans, which included timelines, budgets, goals, and metrics.

#### Southwest Organizing Project- New Media Intern, August 2010 to November 2010

- Helped develop and write for SWOP's new blog, El Grito. Also, reach out to community members to get their voice on the blog. This includes: youth, community activists, poets, heads of non-profits, and other interested community members
- Assisted in coalition work to develop a city-wide renewable energy financing district where people can take loans to pay for renewable energy installations and pay this back via their property taxes.
- Helped out with a variety of SWOP events and campaigns.

#### Political and Consulting work –April 2010 to November 2010

- I worked with Neri Holguin to run a field campaign for State Auditor Karen Montoya and to help fundraise for Ray Powell for Land Commissioner during the Primary. I ran field for State Representatives Mimi Stewart and Benjamin Rodefer during the General election, as well as assisted Ben with fundraising. Other duties included recruiting volunteers, organizing phonebanks and doorknocks, using the VAN to develop call and walk lists, helping organize campaign events, and assisting in coalition work with other progressive candidates.
- I performed consulting work with America Speaks to recruit community members to participate in a national town hall event regarding the national budget. I helped to recruit mainly youth and people of color to the event, and also helped with logistics for the town hall. I also worked the day long event.
- All consulting work involved managing other field staff, as well as volunteers. I worked on budgets for field campaigns, as well as for events being thrown.
- In regards to political fundraising work; I worked with candidates on fundraising letters, assisted with fundraising calls, created lists of people to fundraise to, helped plan and host fundraising events, and performed fundraising calls and outreach.

#### New Mexico Youth Organized- New Organizing Director, January 2008 to March 31, 2010

- Performed research on a variety of policy issues, including: environmental issues and related policy, healthcare, tax policy, green jobs legislation, and city and state policies.
- Assisted in researching, developing, and passing green jobs legislation during a state Legislative Session in 2009.
- Wrote blogs on a weekly basis for the website [www.clearlynewmexico.com](http://www.clearlynewmexico.com) and performed many of the blog's technical functions via the Wordpress software. Wrote articles on many environmental topics including, the oil and gas industry, the local uranium industry and the local coal mining industry.

- Helped develop field campaigns. Duties included: volunteer recruitment, running phonebanks and doorknocks, and data entry. These campaigns included Get Out the Vote, and accountability and public awareness campaigns.
- Engaged in a variety of public speaking engagements at meetings, convenings, conferences, etc.
- Developed and implemented a youth leadership program. Also assisted with past internship programs hosted. Had to write out campaign plan and develop a budget for this year long program. Managed part time interns and youth that came from these programs.
- Worked within environmental coalitions to address environmental problems like coal-fired power plants, water pollution from carbon based industries, and health impacts from these instances.

### **Qualifications**

- ◆ Management skills involving both retail and organizing work. Have managed staff, interns, and volunteers via an array of jobs. Have always received great feedback on the staff I've managed.
- ◆ Experience with fundraising within a non-profit setting, as well as within a political setting.
- ◆ Experienced in crafting campaign plans, power maps, strategic plans, and coalition strategies.
- ◆ Experience in growing and engaging an organization's membership base
- ◆ Great connections to the philanthropy world, both locally and nationally.
- ◆ Have worked extensively within the New Mexico social justice movement
- ◆ Have worked with a variety of youth via mentorship/leadership programs
- ◆ Experience working with coalitions, chapter groups, and boards of directors.
- ◆ Good Communication Skills
- ◆ Job Longevity
- ◆ Very Hard Worker
- ◆ Self Starter
- ◆ Large array of Organizing Experience
- ◆ Science and Math Background
- ◆ Policy Development Background
- ◆ Public speaking skills
- ◆ Experience in doing group facilitation
- ◆ Experience working with a variety of demographics
- ◆ Political background
- ◆ Experience crafting campaign plans and budgets.

### **Coursework from Recent Years**

- ◆ Taken multiple trainings on grant writing and fundraising.
- ◆ Wellstone Political Training
- ◆ Training on the Action Learning Method
- ◆ Strategic Leadership Institute (SLI)
- ◆ Training on use of Open Space technology
- ◆ Leadership trainings via the Green for All Fellowship Program
- ◆ Media trainings towards blogging and investigative reporting
- ◆ Technical Writing
- ◆ Advanced Environmental Science
- ◆ Environmental Systems

### **Awards and Acknowledgements**

- ◆ Recognized as one of Poder's magazine 2013 Green Latinos
- ◆ Been featured in The Nation magazine, Democracy Now!, The Root, Poder Magazine, Democracy for New Mexico, truth-out.org, and Young Voter Live TV.
- ◆ In 2009, testified before the House Committee on Global Warming in Washington, D.C.
- ◆ Part of the first class of Green for All's Fellowship program.
- ◆ Guest speaker at 2009 Powershift Conference
- ◆ Part of the third class of the Strategic Leadership Institute (SLI)



Congratulations on starting a Bucket Brigade in your community!

This packet contains all the information you need to gather the parts for your upcoming Bucket Brigade training. On this first page, you'll find a general checklist for all the necessary items. On following pages, you'll find detailed information about each item (including part numbers and local distributors). If you have any questions or run into any problems while purchasing supplies, please contact GCM. We're here to help!

For **each** Bucket, you'll need:

	Quantity	Item
<input type="checkbox"/>	1	18 qt. clear Cambro™ Camwear Round container
<input type="checkbox"/>	1	Cambro™ Camwear Round lid
<input type="checkbox"/>	1	SWAGELOK Brass Bulkhead Union
<input type="checkbox"/>	1	SWAGELOK Stainless Steel Bulkhead Union
<input type="checkbox"/>	1	SWAGELOK Stainless Steel Cap Nut
<input type="checkbox"/>	1	SWAGELOK Stainless Steel extra ferrels
<input type="checkbox"/>	1	Vacuum Pump (either battery powered or hand pump)
<input type="checkbox"/>	2 ft (1 m)	Polyethylene (PE) or Tygon tubing 3/8" (9.5mm) outside diameter
<input type="checkbox"/>	2 of each	Washers: 3/8" (9.5mm) and 9/16" (14mm)
<input type="checkbox"/>	1	Needle-nosed pliers

During the construction process, you'll also need:

<input type="checkbox"/>	1	Drill
<input type="checkbox"/>	1 each	Drill Bits: 3/8" (9.5mm)
<input type="checkbox"/>	1	Drill Bits: 9/16" (14mm)

### The Bucket

The most important part of the Bucket Brigade is the bucket! Over the years, we've found that food service containers work best for air sampling because they are (a) clear and (b) have an air-tight lid. If you are having trouble finding this exact model, please contact GCM immediately to discuss alternatives.

Description	Part #	Photo	Supplier
18 qt. clear Cambro™ Camwear Round container	RFSCW18		BETH MATECHET LTD. 32 Joseph Karo St. Tel-Aviv 67014 Israel Phone: 972 3 5626685 Fax: 972 3 5626985 Email: <a href="mailto:b-m@b-m.co.il">b-m@b-m.co.il</a> Website: <a href="http://www.b-m@b-m.co.il">www.b-m@b-m.co.il</a>
Cambro™ Camwear Round lid	RFSCWC12		

### Swagelok Fittings

These fittings will control the flow of air in and out of the bucket while collecting a sample. Ironically, these parts are the same parts that industry uses. Because of this, the supplier, Swagelok, has distributors worldwide and can be found anywhere there's industrial polluters. To locate your closest supplier, see below or visit <http://www.swagelok.com>.

Description	Part #	Photo	Supplier
SWAGELOK Brass Bulkhead for 3/8 inch tubing	B-600-61		B.T. Israel Valve & Fitting Ltd. 18 Galgalei Haplada St Herzliya 6957 Israel Phone: (972) (9) 957 5353 Fax: (972) (9) 957 6957
SWAGELOK Stainless Steel Bulkhead Union for 3/16 inch tubing	SS-300-61		
SWAGELOK Stainless Steel Cap nut to fit 3/16 inch bulkhead	SS-300-p		
SWAGELOK Stainless Steel extra ferrels ( to attach sample bags)	SS-300 - set		

### The Pump

The pump, also necessary for a functioning bucket, must create a vacuum that sucks air into the sample bag. There are two options (but you only need to buy one kind)--one battery powered and one that is a hand pump. Either way, the important factors are (a) that the tubing fit snugly into the opening and (b) that the pump "sucks" air rather than "blow."

Description	Part #	Photo	Supplier
Dirt Devil® Detailer Cordless Hand Vacuum or similar	64-2902		Available on Amazon.com or try hardware stores (like Ace Hardware)
<b>OR</b>			
Large hand pump with "2-way action" that allows for "sucking" action on both the up and down strokes (often used for deflating air mattresses or inflatable boats).	n/a		Camping equipment stores or hardware stores

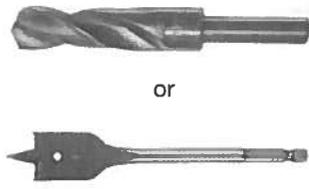
### Other Supplies

Now that you have the three main components, there are several other odds and ends that will finish off the Bucket. These items can generally be found in hardware stores.

Description	Part #	Photo	Supplier
24" (1m) of Polyethylene (PE) or Tygon tubing 3/8" (9.5mm) outside diameter	n/a		Generally found in hardware stores (like Ace Hardware) or in aquarium shops.
Washers: 3/8" (9.5mm) and 9/16" (14mm)	n/a		Can be found in any hardware store (like Ace Hardware)
Needle-nosed pliers	n/a		Can be found in any hardware store (like Ace Hardware)

### General Supplies

Lastly, here are some parts that you will need to have during construction.

Description	Part #	Photo	Supplier
Drill	n/a		Ask around. Surely someone in your community has a drill you can borrow.
Drill Bit: 3/8" (9.5mm)	n/a		Hardware stores (like Ace Hardware)
Drill Bit: 9/16" (14mm) (may be a "spade" style bit)	n/a	 <p style="text-align: center;">or</p>	



## **Citizen Air Sampling: Bucket Brigade Project in New Mexico Community-Based Air Monitoring: A Crucial Piece of the Puzzle**

### Building a trail of evidence

Regulatory and environmental agency personnel are not available at all hours to come out during a pollution incident. In the case of New Mexico, a proper citizen complaint system is not established. A proper citizen complaint system would include a telephone hotline followed by rapid response from regulatory agencies and timely air sampling during odor incidents.

Community-based monitoring provides an opportunity for residents to respond immediately to the pollution incident with sampling equipment and to contact agency personnel.

Global Community Monitor (GCM) helped the SouthWest Organizing Project (SWOP) train three communities in New Mexico to keep a record of pollution incidents. These records include: the location, nature, and duration of the incident; the wind direction, health effects or property damage; and how the incident was addressed – by a call to the regulatory agency or the company suspected or known to be the source of the pollution, or informative calls to other neighbors.

Pollution incident records are referred to as “pollution logs.” Pollution logs filled out by community members ensure that a record is maintained beyond regular agency business hours. Community members are also encouraged to take pictures and/or use a video camcorder to catch a visual image of the pollution.

Bucket Brigades provide evidence and hard science to support the anecdotal stories of health impacts that all affected communities know too well: strange odors causing nausea, stinging eyes, burning noses, sore throats, coughs, and other distressing health symptoms. Community based monitoring engages community members in record maintenance, site identification, operation of monitoring equipment, documentation, and custody and shipping of the sample.

The information gathered by Bucket Brigades, combining science with community experience and reports, helps bridge the gap between communities, regulators and industry. Air sampling and monitoring can provide key evidence exposing chemical exposure, can be a tangible way to show that the air pollution has decreased in a community, and can help build relationships where community members coexist with their industrial neighbors.

### Bucket Brigade Training & Methods

To begin an air monitoring project, a research assessment should be done of toxic hazards in a target community and to identify the appropriate environmental monitoring tools that will assist community members in investigating their health concerns and exposures. Data is reviewed on pollution sources and toxins to prioritize the most serious sources for early action. All Bucket Brigade trainings are conducted on site, in the local community.

For this project, SWOP and Global Community Monitor were given a local tour by each of the three communities of Mesquite, the San Jose community in Albuquerque, and on the Navajo

Reservation. During the training, GCM provided a day-long classroom training, including background on pollution and environmental health, how to document pollution incidents, hands on training and how to use monitoring equipment. We worked with the local community members to co-design an environmental sampling plan.

The training and plans emphasize standard scientific methods. Community members learn how the monitoring equipment works, the best time to use it, and the appropriate paperwork to fill out before shipping a sample to the lab. The Bucket Brigade's work is strengthened by following stringent Quality Assurance/Quality Control (QA/QC) protocols and the use of EPA approved methods at the lab.

#### The Bucket Monitoring Equipment

Due to the nature of the uncertainty of the emissions associated with chemical manufacturing, petroleum storage and offloading, and refining, this project chose to use the Bucket as the monitoring equipment. The Bucket is modeled after the Summa Canister, but has some advantages in its use.

The Bucket is portable, requiring only a tedlar bag and vacuum to take the grab sample. Air is "grabbed" out of the air for two to three minutes and captured in the bag. Once the sample is taken, the tedlar bag is sealed, removed from the bucket and sent to the lab for analysis.

The lab analysis is conducted by Columbia Analytical Services in Simi Valley, California. The lab utilizes EPA method TO-15 and ASTM D 5504-08 method for sample analysis. The TO-15 analysis includes a spectrum of more than 67 volatile organic compounds and the ASTM D 5504-08 method is used to test for 20 sulfur compounds.

Once the community members are trained on the equipment, the buckets are kept at various locations in the community – selected based on the location of odors and health symptoms that have been experienced and reported. When an odor incident occurs, Bucket Brigade members join together to bring a bucket to the site of the odor incident and take a sample of the air at the time of the odor. The communities of Mesquite and San Jose used this bucket as a tool for air sampling since they deal with an issue of cumulative impacts from volatile organic compounds.

#### The Particulate Matter (PM) Monitoring Equipment

Various environmental agencies throughout the country recommend that a Mini Vol Portable Air Sampler produced by Airmetrics be employed while monitoring for particulate matter. The Mini Vol provides accurate and precise results, is easy to use, and can be moved from location to location allowing for a broader assessment of how toxic air contaminants might be distributed in the Lebec area.

The Mini Vol Portable Air Sampler samples ambient air for particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub> or total suspended particulates -TSP) and/or non-reactive gases (CO, NO<sub>x</sub>). Airmetrics and the US EPA jointly developed the patented low-flow technology used in the Mini Vol. While not a US EPA Federal Reference Method (FRM) sampler, the Mini Vol provides results that closely

approximate reference method data. Affordable and portable, the Mini Vol is ideal for saturation studies, emergency response situations, fugitive emissions, prescribed burning sampling, and urban air quality studies.

The Mini Vol is basically a pump unit that pulls air through a filter holder assembly, where particle size separation occurs by impaction. The flow of air can be adjusted and, in this case, has been set at 5 liters/minute. The particulate matter is collected on a 47mm filter. The filters are weighed pre and post exposure by a microbalance, accurate to one microgram, to determine the particulate concentration. The Mini Vol does not provide any real-time readout. Samples are sent to a lab that utilizes EPA approved methods for analysis.

Samples for this report used a variety of standard and accepted methodologies by a certified laboratory for analysis. Particle samples were subjected to analysis for concentrations of PM 2.5 by pre and post weighing analysis by Chesterlabnet in Oregon. A portion of these samples were also subjected to analysis for metals by X-ray refractory technology (XRF).

In addition, other filter samples were analyzed for concentrations of diesel particulates by NIOSH method 5040 as Elemental Carbon as compared to Organic Carbon (EC/OC).

The Mini Vol features include a seven day/six run programmable timer, an elapsed time meter, low flow and low battery shut-offs, and operation from rechargeable battery packs. The Mini Vol can sample for only one size of particulate at a time and can sample for PM10, PM2.5 or TSP depending on the nozzle attachment used.

At the end of a particulate sampling period, the filter holder and battery pack are replaced by a second filter holder and a second battery pack (two of each come standard with a new Mini Vol). Once a sample is collected, the exposed filter is sent to the lab for post-exposure weighing and analysis and a fresh, pre-weighed 47mm filter is placed into the filter holder for the next sample collection. Recharge of the spent battery is accomplished in about 16 hours using a universal transformer connected to a wall circuit. At certain sampling locations electrical power is available and the Mini Vol is simply plugged in during sampling periods.

Prior to leaving the vendor's shop, each Mini Vol sampler is calibrated using a Laminar Flow Element and a calibration curve traceable to NIST is included with each new sampler. The manufacturer requires an annual recalibration test to ensure Quality Control/Quality Assurance. The monitor used in this report was recalibrated by the manufacturer prior to commencement of the project. Community members on the Navajo Nation used the Mini Vol to study the impacts of coal mining activities, while community members in the San Jose community used the Mini Vol to take samples around diesel engine impacts that come from idling trains in their community.



GLOBAL COMMUNITY MONITOR  
**BUCKET**  
www.gcmmonitor.org



# Telling Toxic Truth Worldwide

International Bucket Brigade Manual  
A Comprehensive Community  
Environmental Monitoring Handbook





## Acknowledgements

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- South Durban Community Environmental Alliance, Desmond D'sa and Steven Van Wyk
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- Francesca Francia

## **Community Leaders/Future Bucket Brigaders/ Fellow activists:**

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Communities around the world are being poisoned by toxic pollution from industrial operations. Corporate and political interests have superceded public health, social justice and environmental integrity. Global Community Monitor's International Bucket Brigade Manual will empower you and your neighbors to respond to these problems and monitor your environment as a first step toward taking action to clean up your community.

By joining the growing number of Bucket Brigades, you will meet activists from all over the world who are dealing with -- and overcoming -- the same problems that you know so well: industrial odors late at night, early in the morning and on the weekends; soot, ash, and dust on your property; clouds of thick black smoke blanketing your neighborhood; contaminated drinking water; and mysterious illnesses in your community. Pollution problems exist in areas near industry in both developed and developing countries.

Global Community Monitor is an international human rights not-for-profit organization that has worked with communities in 20 countries and 22 US states. The Bucket Brigade is one of our most successful programs because it gives your group tools and training to take action. By becoming part of the global network of community monitors, you will be part of a grassroots mobilization that is achieving lasting change for everyone.

Communities experiencing pollution are witnesses to environmental crime and human rights violations in progress. We will show you ways that people all over the world are documenting these crimes with hard scientific evidence that cannot be ignored. Learn to use your knowledge of your neighborhood, coupled with sound scientific data, to get the truth about what is coming out of the smoke stacks. From Port Arthur, Texas, to Chennai, India, government environmental authorities are missing in action, or non-existent, in polluted communities. They show up only after the pollution or odor has gone away, or not at all. The evidence of pollution -- and the potential for strict enforcement -- is gone before they arrive, and no record exists of any problem.

The Bucket Brigade works with your community to record pollution incidents systematically and effectively by taking samples while the pollution crime is in progress. You will be doing the work that your government should be doing. This enables your community to set the standard for how pollution problems will be handled. This handbook contains information that your community can use as a tool kit for organizing and collecting data. The Bucket Brigade will assist you as you form a team, identify and verify environmental crimes in your area, and take back your right to clean air, water and land. Remember, it's not normal to see, taste or smell your air -- or to endure polluted water or land because someone else is not acting as a responsible neighbor.

For health and environmental justice,

Denny Larson, Executive Director

Ruth Breech, Program Director

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## Our Victories

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Global Community Monitor and our partner community Bucket Brigades have won many victories for reducing pollution and increasing public health and safety. Here are a few of the monumental victories that we proudly share with our community partners:



**Norco, LA** -- Citizens of Norco, Louisiana, won full community relocation from Shell Chemical in 2002. They launched a long, hard fight, using creative resources and partnering with the Louisiana Bucket Brigade and numerous local, regional, national and international partners. Norco residents took bucket samples revealing the presence of 20 Shell chemicals in every breath of air they took. Despite attempts by Shell to divide the community, Norco residents stood strong and won relocation for everyone who wanted to be moved.

**Ocala, FL** -- Neighborhood Citizens of Northwest Ocala trained in Bucket Brigade techniques for detecting soot and metals covering their homes, cars and lungs. Before the community could even take a sample, the Royal Oak charcoal plant announced it was shutting down in late 2006, rather than be put to the test.

**Addyston, OH** -- The Westside Action Group and Ohio Citizen Action won a good neighbor victory over Lanxess plastics in September 2005. Lanxess (formerly Bayer) agreed to reduce its overall pollution, especially cancer causing butadiene to as close to zero as possible, reduce accidents and to increase communication with neighbors during pollution incidents. Nearby Meredith Hitchens Elementary was closed because air samples showed chemical levels unsafe for children.

**Corpus Christi, TX** -- In a first ever court case of its kind, Venezuelan owned CITGO oil company was convicted in federal court on five criminal counts of violating the Clean Air Act in June 2007. Citizens for Environmental Justice has been hot on CITGO's trail for many years, performing pollution patrols around its refineries and blogging essential news about the case.

Victories can come slowly -- or quickly as a rapid succession of enormous events. Either way, we have learned lessons from each project. The following communities are in the middle of their work, having won major commitments, but are still working on the full implementation of their victories:

**Port Arthur, TX** -- Community In-Power Development Association, Inc. won a landmark good neighbor agreement with Motiva (Shell) in 2006, by monitoring the refinery and delaying an expansion permit. Stipulations of this agreement require the company to pay for additional air monitors for the community, and to pay \$3.5 million into an endowment fund set up for the restoration of Port Arthur. Shell also agreed to additional emission controls not required by law.

**Yarloop, Western Australia** -- Community Alliance for Positive Solutions, Inc. (CAPS) used Buckets in a successful campaign to make ALCOA Aluminum and the Western Australian government relocate residents away from danger. CAPS is also battling ALCOA's permit for expansion there.

**Louisville, KY** -- Responding to remarkable protests, media coverage and sampling by Rubbertown Emergency Action (REACT), the mayor of Louisville passed the Strategic Toxic Air Reduction (STAR) program in 2005. The STAR program targets 18 toxic chemicals for reduction at all of the chemical plants in Rubbertown. REACT is currently developing a report to standardize the odor complaint process with its local air board.

**Durban, South Africa** -- groundWork South Africa and the South Durban Community Environmental Alliance, along with several other community groups in South Africa participating in the Bucket Brigade, pushed the South African government to change the old apartheid laws on air quality. The government has now enacted the South African National Air Quality Act, and activists continue to work with government officials on health standards for the Act.

## Testimonials

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"Without the Bucket Brigade we would still be protesting on the side of the street. We contacted every agency, and not one would help us until the Bucket Brigade came to Pensacola and helped us to take our first air test. With that air test, the agencies started to take us seriously and pay attention."

*Lawana Bazinet, Citizens Against Toxic Exposure, Pensacola, FL*

"In Corpus Christi, Texas, benzene has been a chronic problem. The state regulators' monitoring is based on averaging, which conveniently brings the numbers down; however, with our Bucket monitoring, we're able to see for ourselves just how high levels of benzene and other gasses are, without playing with the numbers, like the state does."

*Suzie Canales, Citizens for Environmental Justice*

"The Bucket samples taken on the 18th and 19th September 2007, after an explosion and fire at the biggest chemical storage facility in South Durban, South Africa revealed that Bromomethane [methyl bromide] was 5100, which is 64 times the upper limit for chronic exposure, and 8 times above the World Health Organization's standard. The samples also revealed chemicals like benzene and other toxics. Once again the bucket has shown that it has no equal when it comes to providing reliable information, as even the government sample did not reveal the exposure of these poisons."

*Desmond D'sa and Stephen Van Wyck, South Durban Community Environmental Alliance*

"The residents have a tool to prove that the bad smell is not just bothersome, in fact it is toxic chemicals that pose a health threat."

*Bessie Dent, Calumet Project, Whiting, India*

## What we test for

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Global Community Monitor works steadily to expand the toolkit of community monitor tools in support of local campaigns. Current tools in use can effectively test for toxic gases, particulates, heavy metals, PAH's, soil and water contamination.

## **How Quickly does the Bucket Brigade Get Action?**



Once your group starts a Bucket Brigade, things start to happen right away. Just announcing that you as a community are taking control and monitoring your environment turns the tables on polluters and government agencies. Many communities note that before they take their first sample after a public announcement, polluters reduce their dumping -- hoping they won't get caught. As you communicate your sample results and demand action, you'll see attitudes begin to change and your campaign build. A study by researchers at Massachusetts Institute of Technology documented that Bucket Brigades in California and Louisiana spurred government agencies to do more monitoring and enforcement as a result of their actions. It also documented increased monitoring and pollution reduction measures by targeted corporations. Will all problems be solved overnight? No, but many long running campaigns have found that adding the Bucket Brigade to their efforts helped push them across the finish line.

## **PART I: HISTORY, RIGHTS, LAW & YOUR HEALTH**

### **A brief history of the Bucket Brigade**

Attorney Edward Masry, who hired the now famous Erin Brockovich on her first environmental case, led the first Bucket Brigade in 1995. He was suing a petroleum factory on behalf of citizens in Contra Costa County, California. While working one day in the area, Ed and Erin became ill from the fumes the factory was emitting. Masry quickly learned that the agencies monitoring the emissions never seemed to be around when the factory had a particularly bad release. He knew that his team needed a way to verify and prove that the factory was emitting toxic chemicals into the air. Masry hired an environmental engineer to design a low cost device that communities could use to take air samples. The "Bucket" was designed, providing the foundation for the Bucket Brigade to begin empowering the community to monitor the air for itself.

This set in motion a movement that would give communities living near refineries, chemical plants or other toxic emitting sources a chance to take on indifferent regulators and corporations--the same regulators and corporations that insist that there is no problem with the air quality near these plants while the community watches its children get sick with asthma and other worsening health conditions.

Working closely with Mr. Masry, Denny Larson (then with California-based Communities for a Better Environment) promoted the use of these Buckets in other communities exposed to toxic air emissions. Denny launched the Bucket Brigade in 1995. Denny formed the Global Community Monitor to continue to work with grassroots groups around the world to help them launch their own Bucket Brigades in 2001. Bucket Brigades have been active in 20 different countries and have a proven track record of effectiveness in forcing polluters and agencies to clean up their acts.

## **Your human right to clean air, clean water and a healthy environment**

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International law and human rights charters have established that every person is entitled to clean air, clean water and a healthy environment. Governments and corporate charters cannot infringe on this human right regardless of their desire for profit.

Unfortunately, this has not stopped governments and corporations from creating toxic pollution zones where the rights of neighbors are infringed upon. Often times, the need for jobs, modernization and “progress” is cited as the justification for such actions.

Despite the positive aspects of industrialization, neighbors of these facilities and their wastes suffer an unfair burden of polluted air, water and land. Communities that live in the shadow of toxic pollution have been shown to have higher percentages of low income and people of color populations. In the United States, South Africa and a growing number of other nations, this burden has been identified as an issue of Environmental Justice.

A growing grassroots global movement is building to identify such injustices and attack their root causes. The Bucket Brigade method has proven to be an effective way to demonstrate the unusually high levels of pollution in Environmental Justice communities, as well as an effective way to begin to address the issue.

### **United States law**

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In the United States, Congress passed the National Environmental Policy Act (NEPA) in 1969, recognizing that “each person should enjoy a healthful environment.” Unfortunately, more than 30 years after this declaration, millions of people living near polluting facilities suffer an excessive burden of health-threatening chemicals.

Many neighborhoods in highly industrialized zones receive little or no basic monitoring of pollution, or enforcement of basic health protection measures. The result is asthma, illness, childhood abnormalities, and premature death.

By forming a Bucket Brigade, you and your neighbors can take steps to ensure that your industrial neighbors comply with the health protections to which you are morally and legally entitled. Here are two laws that you should know:

#### **Clean Air Act**

Under the US Clean Air Act, the Environmental Protection Agency (EPA) sets emissions limits for toxins based on the danger they pose to human health. If these limits are surpassed, then a facility is in violation of the law. Facilities are often out of compliance. The Louisiana Bucket Brigade recently won a ruling against Exxon because the refinery’s own records showed the facility consistently in violation of the Clean Air Act.

However, enforcing the Clean Air Act can be problematic. Government regulators lack adequate budgets and staff resources to make sure facilities are not violating the law. Often the regulators leave it up to the facilities to report violations themselves. Community monitoring by groups, such

as the Bucket Brigades, is essential to making sure that industrial facilities comply with the law.

### **Emergency Planning and Community Right to Know (EPCRA)**

Congress passed EPCRA in response to the Bhopal, India disaster that exposed the danger that industrial toxins pose to community health. One of EPCRA's central aims is to increase the public's knowledge and access to information about chemicals used at individual facilities, about what those chemicals do, and about releases into the environment.

Thanks to EPCRA's Community Right to Know provision, you have a legal right to know what chemicals are being stored and released in your area. As a part of EPCRA, each year the EPA produces the Toxic Release Inventory (TRI), a database of polluting facilities and toxic chemicals. TRI is an important tool for Bucket Brigades: it helps neighborhood leaders to "fingerprint" the chemicals that a facility puts out. The TRI database makes information available by zip code, facility or chemical at: [www.epa.gov/tri](http://www.epa.gov/tri).

### **International law**

Air pollution laws and enforcement vary widely from country to country. Some areas lack meaningful environmental protections entirely. But others, such as South Africa, recognize the human right to clean air and a healthy environment in their constitutions and legal systems.

Fortunately, many developing nations are beginning to establish legislation and policies that recognize the public's "Right to Know" and monitor and regulate the release of pollution into the environment. Increasingly the governments of developing nations involve the United States EPA and/or the agencies of progressive European nations such as Norway, Germany, Sweden or Denmark in these efforts.

A growing number of environmental and community groups in developing nations are seeking the assistance of the Bucket Brigade method as a way to increase their participation as stakeholders in this process. Without the active involvement of community groups and neighbors in the process, industry and corporations will dominate the legal process to the detriment of public health and the environment.

## **What a Bucket Brigade can do for your community**



Forming a Bucket Brigade to document excessive pollution in your community is a big step in working to make your neighborhood safe. The Bucket Brigade is a proven method of success, and can offer technical and financial support for your campaign. Knowledge is power.

Having specific technical information makes it possible for you to track and solve environmental crimes and reduce health threats in your neighborhood. By using the toxic release inventory or national pollution inventory, a community group can identify which toxins

are released by a specific facility. Think of this as an industrial "fingerprint." By taking air samples, the community Bucket Brigade can prove that the facility's fingerprints are found throughout the area and

expose its environmental crimes.

To help new communities start a Bucket Brigade, Global Community Monitor:

- Assists communities with research on industries and pollution
- Provides training and tools to communities that want to perform their own environmental monitoring
- Assists with leadership development and capacity building
- Helps communities form an effective communication strategy
- Collaborates on preparing and implementing a campaign plan
- Helps write oral history projects about impacted communities for the web or publication
- Connects your group to an international network of communities and experts for help

## Air pollution 101



Air pollution is considered to be any chemical or physical entity that has entered the air but would not “normally” be there. The outside air that we breathe is called ambient air. There are many sources of ambient air pollution in the urban environment that can impact

your health. Air pollution can cause respiratory and other health problems for humans and animals, limit visibility, and damage buildings and property.

Many sources of air pollution are stationary: power plants, oil refineries, steel mills, chemical plants, waste dumps (toxic or not), waste water treatment plants, medical and municipal waste incinerators, construction and demolition sites, paint manufacturers, auto body shops and many more. Other sources of air pollution are mobile: cars and trucks are also a big source of air pollution.

Two main types of air pollution come from industrial facilities -- particulate matter and gases. Particulate matter (you might see it abbreviated as PM) is a solid form of air pollution that takes form in dust, heavy metals, smoke, soot or ash. Often you can see and feel the particle pollution. Particles can come from steel mills, incinerators, power plants, road traffic, construction, and many other sources. PM is usually referred to by the particle’s diameter. PM 10 refers to particulate matter smaller than 10 microns in diameter (a micron is 1 millionth of a meter).

Mechanically engineered dust particles are generally larger and don’t stay in the air too long. However, particles that come from combustion sources are smaller, called PM 2.5, so they tend to stay in the air longer and are worse for your health because they can settle into your lungs. New research is showing that small particles can cause heart attacks, lung disease and early death. Some governments have developed air quality standards for PM. A method called swipe sampling is a great tool to detect what pollution is in the particulate matter, how far it has traveled and how much of it you are breathing.

The other form of pollution is gaseous. Some of the most dangerous air pollutants come from refineries and chemical plants. These chemical

### Ambient air

The outside air we breathe is called ambient air. Many sources of pollution contaminate normal air and can impact your health.

### PM

Particulate matter is a solid form of air pollution that takes form in dust, heavy metals, smoke, soot or ash.

### VOC

Volatile organic compounds are a gaseous form of pollution that quickly changes from liquid form to gas. They contain carbon and many are harmful to human health.

gases are often called volatile organic compounds (VOC). They contain carbon and quickly volatilize from liquid to gas. VOC's react with other chemicals in the air to form ozone (smog). Many of these compounds are harmful to human health. Some VOC's are cancer-causing chemicals, others can cause reproductive harm, and some can affect the nervous or immune systems or cause breathing difficulties. The cumulative health effects from exposure to multiple chemicals has not been adequately studied and is poorly understood.

#### **Sulfur Compounds**

These gases often carry a rotten egg odor and can seriously affect your health. Sulfur gases are common as they are major impurities in crude oil, coal, gasoline and other fuels.

Sulfur compounds are another kind of gaseous pollution. They can cause rotten egg odors in your neighborhood and affect human health. Sulfur gases are very common because sulfur is a major impurity in crude oil, coal and gasoline. Sulfur gases can cause irritation and could possibly damage your lungs or respiratory tract.

### **Smog and ozone pollution**

Most governments have limited their monitoring and regulation of air pollution to smog and ozone. Smog and ozone are formed when VOC's, PM, Nitrogen Oxides (NOx), and Sulfur oxides (SOx) are 'cooked' in sunlight. Ozone pollution can cause serious respiratory problems and asthma attacks.

Most governments have failed to develop monitoring programs and regulations for specific gases that make up VOC's. For example, even though it is well established that benzene causes cancer there is little monitoring or regulation of the chemical. Often when community groups complain about air pollution, governments and companies limit the discussion to smog, which is inappropriate. While the monitoring and regulation of smog and ozone pollution is important, it is only the 'tip of the iceberg' when it comes to the threats posed by the thousands of toxic chemicals in our modern world.

### **Health effects of metals**

Metals like lead, mercury and chromium cause serious harm to the human body. For example, lead exposure can cause major irreversible damage to a child's developing brain. Often referred to as "heavy metals," these elements tend to build up in the body and their harm can be permanent. Heavy metals can be carried in particulate matter in the air or dumped into waterways.

Documenting different types of pollution requires different monitoring techniques, which we will explain next in this manual. It is important to identify what types of pollution you want to link to the polluter so that your group targets and then chooses the most appropriate monitoring system.

## PART II: HOW TO SET UP A BUCKET BRIGADE

Now that you know the overall picture it is time to get into the logistics of building your community's Bucket Brigade. If you haven't already, contact Global Community Monitor to start collaboration. Here are a few essential items that communities can do:



### Getting your neighbors involved

Are you participating in an already established group? If not, it will be essential to involve your neighbors and people from the surrounding community. The more people who get involved to take samples or to alert those who do, the better your chances of getting a good sample during a chemical release or pollution incident. By talking to your neighbors, you can also find out if they are experiencing similar odors, dust or health problems.

#### Community meeting

To get started, hold a house party or community meeting. This can be informal and/or social, but keep in mind that everyone is there to discuss the pollution issues in the neighborhood. Be sure to have a sign up sheet for your neighbors' contact information. And be sure to cover the key points below:

*Identifying the problem(s):* As a group, list all the odors or pollution problems in the area. Who experiences what, where and how does it make them feel? For example one person may experience noise if they live closest to the plant and the wind blows their way. Another neighbor may get severe rotten egg odors in the morning that make their eyes water, while someone else may experience the odors in the late afternoon. Have someone take notes.



*Log Sheets:* During the meeting, after your neighbors have described the pollution problems, ask everyone to fill out "pollution incident reports" log sheets. A log sheet can be a thorough document that details who to call during a pollution incident with lists of all the odors and their intensities. Or a log sheet can be a consistent notebook that one of you keeps to describe what you see, smell, taste, and feel. The more pollution reports your group has compiled, the more evidence you will have to use. You will need at least three people in the group to consistently fill out log sheets. We recommend compiling the log sheets monthly onto a calendar so that you can visually see how many pollution episodes occurred each month. Logbooks will identify the "hotspots" of the area, and lead you to where you will take an air sample. See examples of log sheets in the appendix.

*Photographs and Video:* Recording evidence during a pollution incident is extremely important. You can augment your log sheets with pictures from relatively inexpensive new digital cameras and video cameras, and load the results into emails and onto websites. This will help validate your community's experience. Taking pictures and video of the pollution is very strong evidence.

*Research:* It is important for a new group (or an experienced group new to these issues) to do background research. Once you have identified the problems in your area, group members will need to answer a few questions:

- What pollutants are in the area?
- Who is putting out the pollution?
- Who is the decision maker at the company?
- Is there a history of pollution issues in the area or at this facility?
- Does this company have a history of pollution offences in your area or other communities?
- Are there other communities that have had similar problems with this type of pollution?

A small group of 1-3 people should be able to compile research information with a home computer.

*Picking a Campaign:* Once your group has a good grasp of the problems in the area, it is best to focus your efforts. The most effective Bucket Brigades have a plan of action and a strategy to accomplish their goals. Environmental sampling is a very important tool in community campaigns with polluters. Here are a few examples of groups that have been successful with a variety of strategies:



Good Neighbor Campaigns -- This type of campaign is designed to change the behavior of a currently operating facility. It is done by communities that want the polluter to clean up its act and maintain a long-term dialogue with neighborhood leaders, and to work towards a win-win situation with the company. Working directly with the company cuts out bureaucracy and encourages the polluter to pollute less than legal pollution levels. This is a particularly valuable campaign strategy for communities that do not want a local polluting facility to close. Evidence from monitoring can help build an understanding of problem areas and of how problems can be prevented in the future. For a comprehensive handbook on Good Neighbor Campaigns, see [www.ohiocitizen.org](http://www.ohiocitizen.org).

Buyout or Relocation Campaigns -- This type of campaign is for communities located too closely to a polluting facility and/or communities being made severely ill from industrial pollution. An agreement is made between the community and the facility in which the facility pays to relocate all community members to a safer area. Although breaking up communities by moving them away is not the most desirable outcome, sometimes it is necessary to protect you and your neighbors. When this is necessary, the polluter should pay to relocate all the families that are in danger.

Closing the facility -- Sometimes a facility poses such a great danger to the neighboring community that the best option is to shut it down. On occasion, when a *community campaign* is working to get an industry to clean up by investing in new equipment and better operations, the management will decide on its own to close rather than to clean up.

Pollution prevention and facility clean up -- The best way to stop toxic pollution in your neighborhood is prevent it before it starts. Doing your homework and finding out that a facility is about to locate to your town, or researching permits for expansions on current facilities, can help you prevent pollution before it starts. Getting ahead of the problem before it starts goes a long way.

Legal Action and Lawsuits -- Class Action, toxic tort, and other legal tools have gained high profiles in the press and Hollywood, but they have a slim margin of success. Legal action can be an effective measure for community groups that have the proper guidance and leadership, and access to a law firm. When a claim has been filed, it still remains essential for community groups to organize and to continue with all monitoring and recording functions.

Creating and/or enforcing air quality standards -- Groups in areas that already have good air quality standards and regulations can often get government agencies to do their job by bringing attention to pollution problems by taking samples. An effective media and community campaign with samples can shame government agency regulators into doing their job of enforcing already existing laws. Groups in countries that do not have air quality standards and requirements for air monitoring can get their governments to take action by using their monitoring campaigns.

*Phone Tree/Communication:* Before your community meetings end, make sure you have everyone's contact information. Build a phone tree (and e-mail if appropriate) to communicate in case of a bad pollution incident, for when the best times for sampling arrive, or to pass along really good news.

*Coordinator:* Identify the person with the most time, expertise and drive to coordinate the Bucket Brigade. This person will collect all the pollution incident log sheets monthly, be responsible for signing important documents for samples and keep accounts with labs and banks. If there is more than one person qualified for these tasks, delegate among yourselves and communicate effectively so that everything is covered.

*After the meeting:* After your introductory meeting, your group will need to do additional research to make sure that the Buckets are the most effective tool for your situation. If Buckets are not appropriate, contact Global Community Monitor -- we can work with you to find out the right sampling technique.

## **Working with Global Community Monitor:**

After your neighborhood group has done its homework, contact Global Community Monitor staff to find out what sampling technique is right for you. After finding the right way to measure the pollution in your neighborhood, the next step is developing a budget and organizing to raise money for training, to build your Buckets and to pay for the analysis. Here are a few costs for budget items:

*Training:* Before you start taking samples, we recommend a comprehensive initial training with Global Community Monitor staff members. GCM asks that communities provide housing, food

and transportation for our staff during on-site trainings. These trainings usually include three days of intensive work with your group, including a site investigation of the pollution sources, a six-hour classroom training, Bucket building and field training on sample collection, quality control and paperwork.

*Bucket/Sampling Device:* Building the Buckets is not very expensive—materials cost about \$150 (US) per Bucket. We recommend that each community group build at least two Buckets. You may need \$20-\$50 for tools to begin (an electric drill, wrenches, etc...)

*Laboratory Analysis:* Each lab analysis can vary in cost depending on the pollutants you are testing. The costs are roughly \$250 per Bucket sample for most organic gases and Volatile Organic Compounds (VOC's), and an additional \$150 for sulfur compounds. You may want to consider raising funds for quality control and quality assurance testing.



*Shipping:* Bucket samples are time sensitive material. To get the most accurate Bucket sample, you may need to send it overnight to the lab in California (or to use 72 hour shipping if you are overseas from the lab). Shipping costs vary greatly depending on your location and the shipping company you use.

*Materials:* Don't forget to add in the cost of office supplies, printing and other organizational needs. Many foundations and private donors may help cover "start up" needs for new groups.

## Where to find the money

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Fundraising is an essential part of an effective grassroots campaign. Many community members fear asking other people to help them with the pollution problems in their neighborhood. Getting over the fear of asking will open many doors and opportunities for you and your community. Here are a few suggestions based on successes that other communities have had for raising funds to pay for training, Buckets and testing.

*Grants:* A national, regional or local foundation may be willing to fund community air sampling. Global Community Monitor and fundraising partners can help your community group develop a budget and outline for an effective grant proposal. If your group is not incorporated, you will need to partner with a fiscal sponsor that has 501c(3) status.

*Local/National Government:* Sometimes government agencies will provide you with funding, equipment, or other support. In Cincinnati, OH, Hamilton County Environmental Services, the local air agency, started a sampling program. The sampling program offers SUMA canisters for citizens to use when County personnel cannot be on site. The county pays for all sampling analysis and shipping. In Western Australia, the Department of Environment and Conservation provides funding for Bucket and canister samples and shipping to the laboratory.

*The Media:* Your local newspaper, radio, or TV stations may want your data for an important news story. These people may be willing to pay for lab fees. *The Houston Chronicle* in the USA paid for a comprehensive sampling program as part of a series of articles on toxic pollution.

*Door Knocking or House Meetings:* Buckets can be a great organizing tool and a fundraising

tool at the same time. Go door-to-door or hold a small meeting of your neighbors over coffee with a Bucket, a sheet for contact information and a one-page flyer that details information about your community group, the pollution problems you are addressing and date for your next meeting. Ask for \$5-\$10 per person to help pay for the next community air sample. You'll collect funds and get names and addresses at the same time!

*Lawyers:* Maybe your lawyers will support you. The first Bucket Brigade in Contra Costa County, CA was funded in part by a lawyer who was very supportive of the community and was involved in a number of personal injury suits against a nearby refinery.

*Other Important Allies:* Workers can be a key ally when addressing industrial pollution issues. In Contra Costa County, CA, the pipe fitter's union paid for tests while they pushed for a more stringent hazardous materials ordinance. Pollution prevention protects worker health. Also, if there is a University or College in your region, contact the Environmental, Science and/or Health departments about collaborating on a sampling plan.

*Events:* Be creative! What does your community like to do? Here is a list of ideas to start: house parties, concerts, walk-a-thons, fish fries, chili cook offs, health fairs, car washes, bake sales, awards ceremonies, and more. Events can be fun and are a great way to bring in new people and make money. Display a funding "thermometer" to visually show how much money you have raised. Do keep in mind about how much energy and time it takes to coordinate the event.

When fundraising, it is essential to remember, "you don't get what you don't ask for." Most people will not volunteer money to you, but if they understand the importance of the work then they will surely contribute what they can to the cause.

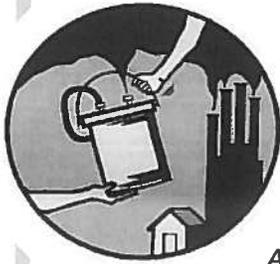
## PART III: USING THE BUCKET



### How the Bucket works

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The Bucket takes an air sample using a "grab" sampling technique. The Bucket traps a few liters of air in a specially lined bag, which is then sent off to a laboratory for analysis. It's that simple. The Bucket is basically a "mechanical lung" that breathes in polluted air so that it can be tested.



#### *How does the bucket take an air sample?*

A plastic bucket serves as a rugged enclosure for a standard “tedlar” bag, a special sampling bag that does not contaminate the air sample. A small vacuum sucks air out of the Bucket. When you open the valve attached to the sampling bag, air rushes in to fill the bag. After taking the air sample, a trained person removes the sampling bag and sends it in for analysis. Replace the tedlar bag and you are ready to take another sample.

#### *Are the Buckets difficult to use?*

The Bucket design is well suited for community use. Sturdy and easy to use, the Buckets provide a cheaper way to obtain the same measurements that our government agencies obtain. With reasonable accuracy, you can identify and measure gaseous air pollutants. This information will help you understand the air you are breathing, ask informed questions, and hold polluters accountable. The Buckets record sound scientific data and can contribute to a better understanding of the environmental problems in your area.

#### *What pollutants does the Bucket test for?*

The Bucket tests for 67 VOC’s and for a majority of sulfur compounds. There are limitations to the Bucket sampling capacity, though. Buckets are for gas pollution only. Buckets cannot test for particulate matter or for toxins that normally attach themselves to particles, such as dioxins. And the Bucket cannot measure for acid rain or radiation. To find out more about sampling particulate matter, see that section of this manual. Buckets offer high quality, reliable data at key moments, such as during major pollution incidents. During an intense pollution incident you will take a sample, fill out proper forms and ship the sample to be analyzed at an accredited laboratory.

#### *How do I get started?*

Global Community Monitor will come out and train your community on how to build your Buckets and use them most effectively. We will work with you to develop and implement a successful air-sampling program, share best practices and help build long term relationships with a network of experienced organizers. Pages 13, 14 and 15 detail how your neighborhood can start a Bucket Brigade.

## **Types of testing—gases**

### *Volatile Organic Compounds*

The U.S. EPA developed the “TO-15” procedure for measuring toxic volatile organic compounds. With Bucket samples, the lab can detect many of these compounds at relatively low levels, in the parts per billion (ppb) range.

Columbia Analytical charges about \$250 for a 43-chemical analysis using EPA TO-15, and \$320 for a 67-chemical test called “modified TO-15.” They reference their chemical library with what is found in your sample. Contact the lab for the most current prices at [www.caslab.com](http://www.caslab.com). Examples of compounds detected by TO-15 are benzene, toluene, and three types of xylenes, acetone, tetrachlorethane and vinyl chloride.

### *Sulfur compounds*

The laboratory has separate procedures for measuring sulfur compounds. These tests are called “modified EPA method 16.” This analysis tests for 20 sulfur compounds. These compounds



can also be detected at low levels -- at the 5 part per billion (ppb) level. If you have taken a sample that should be tested for sulfurs, mail it in immediately if possible. The most accurate sulfur samples are analyzed within 24 hours, but if the pollution occurs on the weekend, send the sample in as soon as you can.

Some examples of sulfur compounds are hydrogen sulfide, carbonyl sulfide, carbon disulfide, and seven types of mercaptans.

Both TO-15 and modified method 16 rely on a chemical database at the lab. The lab checks the samples for those chemicals in their database. When there is a known match, the lab has helped you identify the chemical "fingerprint" of the sample and its concentration in the air you tested. For a list of compounds tested with these methods see appendix section. Global Community Monitor will come to your community to do a site assessment and train your group on how to build a Bucket, take samples and develop and implement a sampling plan. It's time to translate your new information into action. Please take us for a "toxic tour" of your neighborhood.

To prepare, be sure to go over the Bucket parts list and purchase parts that are as similar as possible to what is on the list. Most of the materials you will need to build a Bucket are available in a local hardware store, by phone or on the Internet. You may already have many of the tools you will need. If you can drill a hole and turn a wrench, you can build a Bucket!

Once you have all your parts, you are ready to build the Buckets. Follow these directions to build a tool that has empowered communities around the world. See the Appendix for a parts list.

Global Community Monitor staff can show you in person how to build a Bucket.

## **Quality Assurance/Quality Control (QA/QC)**

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The US EPA Region 9 conducted tests on the Buckets and the more expensive canisters during the federally funded EMPACT project. Side by side tests with laboratory analysis proved the Buckets samples were credible. The EPA paid for a video showing the Bucket Brigade's success, in which an EPA Senior Chemist states, "Bucket Brigades are absolutely essential and we wanted to support that first line of defense." EPA also published a Quality Control/Quality Assurances document for Bucket Brigades can be downloaded from [www.bucketbrigade.net](http://www.bucketbrigade.net).

After you build your Bucket, there are a few things you need to consider before jumping right in and taking a sample. Quality Assurance and Quality Control are procedures you should follow to make sure your test results are valid. If you can afford it, you might want to do a few test runs with your Bucket and take some



“QA/QC” practice samples before you use your Bucket to sample a real incident. Here are some guidelines you can follow:

#### *General Principles of QA/QC*

- Always be careful and methodical in sampling to avoid contamination of your sample by unwanted sources of pollution (cars, cigarette smoke and other sources you are NOT targeting).
- Write down exactly and specifically what you do and when (date and time and exact location of your sample as well as what you see, smell and hear).
- Follow the specific QA/QC procedures. When unsure, check in with your Bucket Brigade coordinator or GCM.

#### *Ideal Time Frame for Sample Analysis*

- The preferred time frame is within 24 hours for sulfur analysis and 72 hours for Volatile Organic Compound (VOC) analysis. The sulfur chemicals may degrade quickly. Results will still be viable after 24 hours – and you should still send in the sample – but if it’s at all possible, send the sample in sooner.
- **KEEP IN MIND:** This is the ideal – reality often does not allow for the ideal timing. Even if your sample arrives after 24 or 72 hours, you should tell the lab to process it. Many bucket samples have been tested after 72 hours and had very high levels of pollution.

**REALITY CHECK:** Most pollution happens late at night, early in the morning and on the weekends. If there is an intense odor or a pollution event on a Friday night, take the sample. Send in your sample even if it is after 72 hours. You will be the only person taking a sample at this time, and this makes your sample very important.

#### *Duplicate Testing and Field Blanks*

- Duplicate samples -- Duplicates are important because they ensure that the bucket is operating properly. Take side-by-side samples with an additional bucket. Duplicates should be performed on each new bucket and then on an annual basis, during an event, or even as a background sample.
- Field Blanks -- A field blank is when you put a second sampler in the same conditions that you do to take a sample, but you don’t actually take a sample. It allows you to check for contamination that may occur in the field. Make sure that the empty bag has no contamination. Perform quarterly. Government agencies or companies may ask whether you took field blanks as a part of QA/QC.

**REALITY CHECK:** You have limited funds for sampling. If your group is pressed on duplicate testing or field blanks as part of a QA/QC test of your Buckets, ask the environmental agencies or companies to pay for the tests.

The procedure for field blanks:

- 1) Place two Buckets in the same storage areas with clean new bags.
- 2) When you sample, put the buckets side-by-side. Sample from only one bucket.
- 3) Record on the Chain of Custody all vital information, including time and storage location.
- 4) The Bucket Brigade Coordinator sends the two bags to the lab. Leave the blank empty. Follow the usual protocol except write BLANK on the Chain of Custody sheet for the blank. Ask the lab to fill the bag with pure nitrogen and test for the same list of chemicals.

### *Nitrogen Purge*

When bags come from the manufacturer they may have residual chemicals in them that will show up in your sample. We have seen small but significant levels of acetone, toluene, and other compounds show up in our field blanks. In order to ensure a good sample you will want to ask Columbia Analytical laboratory to send you bags that have been filled and purged with research grade pure nitrogen. We recommend your group buy sample bags from Columbia Analytical, the lab that analyzes the samples. A general rule of QA/QC: the fewer hands involved in handling the bags and the sample, the less chance there is for contamination.

## **When to take the Sample**

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We recommend that you take a sample when you experience noxious smells, eye, throat or nose irritation, headaches, or see an indication of pollution coming in your direction from the target industrial facility.



### *Pollution patrols*

Use the pollution logs from your neighborhood group to identify "hot spots" in the area. Drive or walk from spot to spot to see if the odor is stronger or weaker in different areas.

**CAUTION! Don't hurt yourself! If you feel immediate health effects or are concerned about possible long term affects, LEAVE IMMEDIATELY! Health is more important than data.**

Record your exact location, time, wind direction and health effects from the air immediately after you take your sample. You will need to fill out a Chain of Custody form.

Once you have taken a sample, inform your Bucket Brigade coordinator and other samplers. Find out if other samples have been taken and what else is happening.

### *Fill out Important paperwork*

The Chain of Custody form needs to be filled out by the person who took the sample. Fill out all necessary information: date, time, and location of sampling site. Include any observations like smells, smoke or possible sources and include pertinent information like wind direction and weather conditions. The chain of custody verifies that the sample has not been tampered with. Also you will need to mark what you would like the lab to test for, such as TO-15, sulfurs, and Tentatively Identified Compounds (TICs). See the appendix for a sample chain of custody form.

Analyzing the sample usually takes ten business days or three weeks.

## PART IV: TAKING ACTION

**TAKE ACTION!** Great job on taking the air sample. Now make sure these bases are covered for the most effective impact:



- If the odor appears to come from an industrial site, call the company and your local government officials to complain. If they don't hear from you, they will think no one was affected.
- Call your phone tree, your local health department, local air agency, Environmental Protection Agency and any other regulators.

### Understanding and interpreting the results

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Now that you have the results in hand, below is information on how to interpret and understand what was in your sample.

The lab analysis will tell us what chemicals were in the air and how much was present. The left hand side of the report lists the chemicals that were checked. The chemicals are detected at parts per billion by volume (ppb/v). Parts per billion by volume simply means the amount of space that a billion particles take up. The chemical you are testing for occupies so many parts per billion by volume. The lab also shows results as micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). This is like showing a thermometer in Fahrenheit and Centigrade. One of the important reasons why we use this lab is because of the low detection levels that it can show.

If your analysis says ND, or non-detect, this does not mean that there are no chemicals in the air; it simply means that that specific chemical may be present below the level of detection (LOD) of the lab's equipment. The level of detection is the lowest amount of a chemical that can be detected by the lab procedure.

**NOTE:** Many polluters and regulators have sampling equipment that only detects to the part per million (ppm) or 1,000 times higher concentration than parts per billion (ppb). We compare those detection levels to a police officer that has a radar gun that reads 1,000 miles per hour. He or she surely won't catch anyone speeding! If a radar gun detects speeders from 0-100 miles per hour, the police are more likely to catch speeders. Remember, the lowest detection limits are best.

Enter your sampling results on Global Community Monitor's website to access the chemicals and standards database through a link to another website. This database gives available comparisons of various US agency health-based standards and screening levels, and several states that have one hour, eight hour and annual air pollution standards. We have selected this set for comparison because it includes some of the most health-protective standards. You should also determine if your state, locality or nation has its own health-based standards for residential exposure and compare your results to those as well.



If you find that your community air sample is much higher than what is considered safe, you will need assistance. Global Community Monitor can help you interpret your results and connect you to toxicologists and/or medical experts who can help you put the data in context. If your sample comes back with all non-detect results or below any of the levels of concern, contact GCM immediately so we can help you troubleshoot what may have gone wrong. Don't be discouraged: keep working on your sampling skills and you will get a good sample.

## **Communicating your sample data**

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You will need to communicate the lab results to the community, media and to the source of pollution. Here are a few quick steps you should do when you get a lab analysis:

- 1) Write down the chemicals that showed up in your sample.
- 2) Put the chemical and unit amount in the comparison database.
- 3) Check the Agency for Toxic Substances and Disease Registry (ATSDR) for health effects associated with the chemicals.
- 4) Check the possible sources of the chemicals found in the sample--is there one company that emits this chemical or are there other possible sources?
- 5) Compile all of the above information plus the date, time and location into a report. Add in important information from community pollution logs.
- 6) Call a community meeting to report the data.

Here are a few examples of how community groups have communicated their results effectively:

- Citizens of Norco, LA told their neighbors and the press after they saw their Bucket results, "We had not realized we are breathing 20 different chemicals every time we take a breath."
- In Cuddalore, India, Community Environmental Monitor released a report summarizing all of its sample results and compared them to US standards. In some cases, levels of cancer-causing benzene were 100 times what the US considered safe.
- Ohio Citizen Action and Addyston, OH, residents found cancer causing 1,3 butadiene in their samples. Citizens recognized the specific odor as the chemical in their logbooks, and indicated 18-20 days of butadiene exposure by displaying the odors on a calendar.

We strongly recommend that once samples are analyzed and the community has been informed of the results, that your group should hold a press conference about the results and give the results to the environmental regulators and the industrial source of pollution.

## **Additional sampling tools: particles, dust, PAH's**

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### **Particle sampling**

Toxic chemical gases may not be the pollution issue in your community. For many communities, for example, dust is the major problem. Neighbors who live near a steel mill, power plant, port or transfer facility, or other sources of dust are more interested in the dust that covers their homes, cars and the lining of their lungs.

If you are concerned with dust, you can use the Bucket Brigade techniques of community organizing with pollution logs and meetings as described above. However, when it comes time to sample, your approach will be slightly different. You can use swipe samples to detect what is in the dust or particles in your neighborhood. Here's how to get started:



- Research the possible contaminants in your area, and ones that neighbors may be concerned about, like lead for example.
- Make a budget and plan. Swipe samples are relatively inexpensive, \$10-\$15/per most metals for each swipe. If you took a swipe from a windowsill and wanted to test for lead, arsenic and manganese, that would be 3 metals multiplied by \$15 for a total cost of \$45 per sample. Some metals like mercury and hexavalent chromium are more costly and require a separate swipe. Be sure to build in how many samples you would like to take.
- Call or e-mail the Columbia Analytical Laboratory in Kelso, Washington and order the sampling kit. Contact Global Community Monitor about who to speak with at the lab.

## **Taking your swipe sample for heavy metals**

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1. Obtain at least two wipe sample kits from the Columbia Analytical Laboratory for a single sample. This is a clean sample jar with an absorbent wipe cloth and water inside. One of these will be for the sample and one is a "blank" to be tested by the lab to see if there were levels of contamination in the wipe kit before it was used for sampling the dust.
2. Prepare the surface area for sampling. Take note of areas in your community where fallout or dust from industry is heavy. Place a clean metal surface, such as cooking sheet or large pie pan outside for 1 week to collect the dust.
3. Cut a square out of a piece of paper measuring 10 square centimeters to create a standard sampling space. Put on your clean latex gloves to make sure your hands do not contaminate the sample process. Place the square over the surface to be wiped.
4. Open the wipe kit tube and remove the wipe with the gloved hand. Begin to systematically wipe the inside of the square, collecting as much of the dust into it as possible. If the wipe tears, don't worry! Just get all of the wipe bits back into the jar when done. Close the lid to the tube.
5. Place the custody label over the top and glass to show it has not been opened after you completed the process.
6. Fill out the chain of custody form and ship to the laboratory. You do not have to ship it overnight or in 72 hours! Wipes do NOT have a specific time to arrive at the lab like the bucket samples do.



## **Using simple particle samples to make your point**

You should make your point to officials and polluters about particle pollution through several simple yet effective methods. To demonstrate how dust and particles are invading your home and property, you can set out pie plates and hang old white bed sheets until they get dirty. Take your common sense samples and homegrown evidence to your meetings with officials and the polluters to make them understand how unacceptable their actions have become. In Ocala, Florida, a community group took these actions and announced plans to have Global Community Monitor train them on more sophisticated sampling. Before GCM could arrive to conduct the training, the polluter, Royal Oak Charcoal, announced it would close down rather than be tested by the Bucket Brigade.

## **Taking a swipe sample for Polycyclic Aromatic Hydrocarbons (PAH's)**

It is important to talk to technical experts, the laboratory and Global Community Monitor to determine if a swipe sample for polycyclic aromatic hydrocarbons (PAH) is appropriate for your situation. PAH's come from very specific operations only. To get started:

- 1) Determine the dust "hot spots" from pollution logs. Place a clean metal surface, cooking sheet or large pie pan outside for one week to collect the dust. Pick an area where there isn't significant tree cover or other overhanging items that could block the particles from collecting.
- 2) Call the laboratory and order the wipe sample kit. A PAH wipe kit includes several pairs of blue gloves, vials of hexane solution with gauze wipes in each, a bigger vial called the 'temperature blank,' ice packs (not cold), a chain of custody form and a cooler. Once you receive the kit, double check that everything is there and that you understand the wipe procedure. If not, call the lab for further discussion. The cooler will come with items in it, but will not be cold, and it does not need to be refrigerated prior to the taking the sample (unless the lab tells you otherwise for your contaminants of concern). Put the ice packs in a freezer.
- 3) PAH samples are time sensitive. Arrange necessary details with the shipper for immediate overnight delivery.
- 4) Take the sample with the gloves on. Uncork one vial at a time and remove the gauze. Try not to spill the solution. Using the gauze, wipe the surface you are sampling. Place the gauze back into the vial when you are finished. Replace the cap and prepare for shipping.
- 5) To ship, make sure your vials are secure in an egg carton-like case sent by the lab or wrap them in bubble wrap. Put these, the temperature vial and the ice pack into the cooler. Complete your chain of custody form.
- 6) Ship immediately after the sample is completed. You should have the following items: the custody form and the cooler with all materials. Complete the chain of custody and shipping label. Put the proper copy of the chain of custody signed by you and the shipping agent in the cooler. Tape the cooler, and sign across the seal. Ship overnight or in 72 hours if overseas.
- 7) Call the lab to confirm receipt, and ask when the analysis will be completed.

## Defending your results

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### LIAR FOR HIRE

Companies and government agencies will try to discredit your community air samples, and the media and community members will have lots of questions. Here is a list of common questions and answers that have been discussed through the years:

Q: What is the government doing about this?

A: More often than not, your neighborhood is in this situation because the government has not done its job. Your samples will inspire government agencies to get moving... eventually.

Q: Are the samples credible?

A: You follow the principles of QA/QC, fill out a chain of custody, and get the sample analyzed at an accredited lab. If anyone—media, government or corporation—challenges your sample, simply ask them to bring their sampling equipment and do a side-by-side test.

Q: Is the chemical contamination illegal?

A: In most cases, the levels of chemicals in the community are considered legal even though they may exceed health-based screening levels. That does not mean it is safe to breathe these chemicals. In addition, no government has set "safe" levels of exposure to more than one chemical at a time. One thing is certain: there is no scientific evidence that breathing toxic chemicals is "healthy" or good for you. If your community lives very near an industrial source of pollution, and that pollution is crossing the fence line into your community, you have every right to demand that it STOP.

Q: Are there health-based standards for children?

A: NO! This is a great concern. Children receive a higher dose of chemical pollution due to their smaller body weight and more rapid breathing. Their organs and defense mechanisms are not fully developed and may be deformed as a result of contamination. Many health-based chemical standards are for the workplace during an 8-hour workday, 5 days a week. They do not include people who live in the area 24 hours a day, 7 days a week. Also, there are no health standards for pregnant women, elderly people or people with already compromised immune systems.

## Resources for water and soil sampling

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**Soil Samples:** Soil sampling is used to detect a number of toxins that leech into the ground, including benzene. Soil sampling can be expensive, so it is important to work with the lab that will be doing the analysis to determine which chemicals to test.

Soil sampling can also be tricky. It is necessary to take a sample from a small area even though the contamination may be vast. As with all of these techniques, just because a test comes back "clean" or inconclusive does not mean that the contamination and pollution are not a problem or do not exist.

This simply means that the area tested did not exceed detection limits; it does not mean that the entire sampling region is clean. Contact Global Community Monitor for more details.

**Water Samples:** Water samples can be tested for chemicals that have contaminated ground water, surface water, or drinking water using the same "fingerprinting" method used for the other sampling techniques. Testing for chemicals in water differs greatly depending on the type of contamination. Special kits are required for each type of sampling. Contact Global Community Monitor for more details.

## **Real time air monitoring**

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Innovative scientists have developed an air monitor that uses ultra violet (UV) rays to detect chemical gases in the air. This technology allows you to see sample results instantaneously. Global Community Monitor has been working very closely with Argos Scientific (formerly CEREX) on using the real time air monitors to help detect toxic chemicals in the air, and reduce toxic emissions in communities.

Argos offers several types of real time air monitors. These monitors have a computer attached that is programmed to pick up specific pollutants, and to read their fingerprints. In less than one minute you can see on the computer what you are breathing, and at what level of exposure. The Argos real time air monitors detect to very low parts per billion.

Real time air monitors from Argos can cost from \$10,000 to \$40,000 depending on the type of monitor. Communities in Texas and Philadelphia have won real time air monitors from settlements with government agencies and corporations. Groups in Ohio have been able to secure a contribution from a national foundation for a real time air monitor.

Real time air monitors can take hours of continuous data. This data's quality can be assured through Argos staff and summarized in a report with spikes, highest levels of pollution detected, and an average. The Concord Philips refinery in Contra Costa County California is run by community groups to test real time monitors that report pollution on a 24 hour basis. You can see the actual data in real time, along with wind direction at: [labucketbrigade.org](http://labucketbrigade.org).

For an example of a community group that ran a model real time project in the past visit this website: [www.airmonitorchalmette.com](http://www.airmonitorchalmette.com). St. Bernard Citizens for Environmental Quality and the Louisiana Bucket Brigade connected an Argos real time air monitor to the Internet to expose pollution as it happened. Community members could go to the website and see what chemicals the local refineries were spewing. Community members could also see if the chemicals detected exceeded limits or health-based standards.

Global Community Monitor can put you in contact with Argos Scientific or community members in your region who may have access to a portable real time air monitor. See the web site at <http://labucketbrigade.org/article.php?id=131>.

We recommend that communities use the real time air monitor as a compliment strategy to your Bucket Brigade after you have taken a number of samples. These monitoring systems work well together.

## **What to do in case of an emergency event at a facility**

If there is an accident, leak, spill, explosion or fire at an industrial facility in your neighborhood, follow these steps:

- 1) Make sure you and your neighbors are safe; use the phone tree to contact all community members immediately.
- 2) Make calls to all appropriate emergency responders, regulatory agencies, Bucket Brigade partners and media.
- 3) Fill out a pollution incident log; include as much detail as possible. Take samples, and pictures or video if the pollution is visible.
- 4) Attend the company's news conference on the accident to ask the tough questions, put out your own community news release and hold a news conference of your own to demand action.
- 5) Call your own community meeting, focusing the community on how the company will deal with the damage caused by the accident and prevent accidents in the future.

## **CONCLUSION**

This handbook is a work in progress and we welcome your feedback on how to improve it. We have attempted to make it as simple, yet comprehensive, as possible. Please use it in conjunction with working with Global Community Monitor. When you have a question or problem, do not hesitate to contact us. It is essential that your group keep in contact with us throughout your testing program when problems crop up so we can help you solve them. Please always send us copies of your results and stay in touch.

The Bucket Brigade can systematically and effectively record pollution incidents and take samples while the pollution crime is in progress. You will essentially be doing what the government should be doing. Thus communities set the standard for how pollution problems should be handled. By becoming part of the global network of community monitors, you are now part of a grassroots globalization that can achieve lasting change for everyone.

We encourage you to join our e-mail list "bucketbrigade.net" so you can communicate with other Bucket Brigades all over the world. To subscribe, just send an e-mail to [BucketBrigadeNET@yahoogroups.com](mailto:BucketBrigadeNET@yahoogroups.com). This is a great way to communicate your sample results, victories and challenges with some of the best activists in the world!

Now it's time to put your local polluter to the test!

# APPENDIX 1: SAMPLE LOG SHEETS

Name \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Postal Code \_\_\_\_\_  
Phone \_\_\_\_\_ Email \_\_\_\_\_

## Incident

Date \_\_\_\_\_ Your Location \_\_\_\_\_  
Time started \_\_\_\_\_ Time ended \_\_\_\_\_  
Wind direction \_\_\_\_\_

**I See** smoke flare black cloud fire explosion dust

Please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**I Smell** rotten eggs gasoline oil sweet sour bitter

Please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**I Feel** Burning eyes throat/nose irritation breathing problem  
skin irritation headache nauseous other

Please describe \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Action Taken** Call to neighbors Call to Company Call to Environmental Authority

Please describe action and response \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please return your form to:

# APPENDIX 2: BUCKET PARTS LIST

Here are the lists of Bucket parts and tools:

## A. BUCKET PARTS:

1. Parts that can be obtained at industrial valve outlets or Swagelok.com (where you can find your nearest Swagelok dealer - you can NOT get these at the Hardware Store):

SWAGELOK Brass Bulkhead for 3/8 inch tubing -- B-600-61

SWAGELOK Stainless Steel Bulkhead Union for 3/16 inch tubing -- SS-300-61

SWAGELOK Stainless Steel Cap nut to fit 3/16 inch bulkhead --SS-300-p

SWAGELOK Stainless Steel extra ferrels ( to attach sample bags) -- SS-300 - set

### Other Parts:

#### The Bucket and lid:

1 - 18 quart clear food storage container and lid (see restaurant supply stores) or

1 - 5 gallon plastic bucket with metal handle (any hardware store)

1 - Gamma seal lid -2 piece screw top) Order on line at:

[http://freckleface.com/shopsite\\_sc/store/html/gammaseals.html](http://freckleface.com/shopsite_sc/store/html/gammaseals.html)

#### The Pump:

In the US we use:

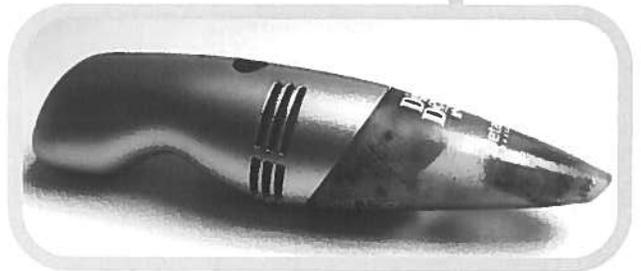
Now available at Target.com on line not at Radio shack

RADIO SHACK

Dirt Devil® Detailer Cordless Hand Vacuum

\$19.99

Catalog #: 64-2902



In SOUTH AFRICA they use a large hand pump with "2-way action" that allows the hose to be attached to 2 sides, one of which provides "sucking" action on both the up and down strokes. It is generally found in camping equipment areas of stores for inflating/deflating large air mattresses or inflatable boats.

2. These seem to be the parts that you can at any hardware store:

2 - 3/8" washers

2 - 9/16" washers

1 - 24" of Polyethylene (PE) or Tygon tubing 3/8" outside diameter, 1/4" inside diameter only needed if you put in a window:

4 - #8/32" machine screws

4 - #8/32 machine screw nuts

8 - washers for #8 screws

1 - 2 3/4 " by 2 3/4 " piece of plexiglass 1/4" thick

## B. TOOLS TO BUILD THE BUCKET –

Drill bits - 11/64", 3/8" and 9/16", 1-1/2". With exception of 1/1/2" bit, may save money if you buy all the bits in one set.

*NOTE: 9/16" is a special 'spade' type bit only!!! (The other kind will not fit in the standard drill.)*

2 - 8" crescent wrenches.

1 - NEEDLE NOSE PLIERS per Bucket (Keep it in there to tighten fittings, etc.)

1 - Drill - ELECTRIC WITH CHANGEABLE BITS (SEE SIZES ABOVE)

Only if you put in a window:

Screwdriver or screwdriver bit for drill with either a flat or philips head depending on the kind of #8/32 screws you buy; either is ok.



## **APPENDIX 4: LABORATORY CONTACT INFORMATION**

**To order tedlar bags and analysis of bucket samples containing gases, contact Columbia Analytical Services:**

[www.caslab.com](http://www.caslab.com)

Email: [KAguilera@simi.caslab.com](mailto:KAguilera@simi.caslab.com) - Kate Aguilera

Email: [MTuday@simi.caslab.com](mailto:MTuday@simi.caslab.com) - Michael Tuday

Reporting Department  
Columbia Analytical Services, Inc.  
2655 Park Center Drive, Suite A  
Simi Valley, CA 93065

Phone: (805) 526-7161

Fax: (805) 526-7270

**To order dust kits for sampling and analysis of dust samples, contact:**

Loan Vo, Ph.D., Project Chemist

Email: [lvo@kelso.caslab.com](mailto:lvo@kelso.caslab.com)

Columbia Analytical Services  
1317 S. 13th Avenue  
Kelso, WA 98626

Phone: (360) 577-7222 x3281

Fax: (360) 636-1068

# **Buckets Are**

## **Credible**

Community sampling and evidence collecting is a well-established technique in environmental monitoring

## **Easy to Use**

The Bucket and other community monitoring tools are designed and well suited for community use

## **Inexpensive**

The Bucket Brigade provides a cheaper way of obtaining the same reliable measurements that our governmental agencies obtain

## **Proven**

Bucket brigades have already succeeded in 19 countries and 22 US states

## **Empowering**

Bucket Brigades enable citizens to do what previously only governments and companies could do – own information about air, water and soil quality

## **Social**

Bucket Brigades bring communities together to work for lasting change



Thank you to the following foundations who have supported  
Global Community Monitor's work:  
Richard and Rhoda Goldman Fund, Public Welfare Foundation, Ben and Jerry's Foundation,  
Courtney's Fund, Rose Foundation for Communities and the Environment, Threshold  
Foundation, Underdog, Tides Center and Patagonia.





# Particle Monitor Checklist

## BUCKET BRIGADE COMMUNITY ENVIRONMENTAL MONITORING

## RUNNING THE PM SAMPLER

### PART I: START THE MONITOR

1. For each location, identify a 24 hr. weather window with prevailing winds largely in one general direction so that monitor(s) can be placed downwind of the facility.
2. Coordinate with at least 1 additional team member to get equipment (monitor, filter mounts, and ladder as needed) from team or office.
3. Indoors, get a Field Data Sheet and a new filter in its case. Record the filter number on the Field Data Sheet.
4. Unscrew the monitor filter holder. With gloves on, place your filter (white paper side up) into the filter holder. Place top & bottom together, hand-tighten. Place the silver

PM 10 jet into the top of the compartment and add the rain hat.

#### Filters for sampling

Filters are pre-loaded into cassettes by Chester Lab. Each filter has its own Lab ID# provided by Chester Lab in Oregon.



5. Put the assembled filter mount into a clean plastic bag to transport to the monitor site.
6. Place a fully charged battery into the monitor and test it by turning it on and off.
7. Transport the monitor, pole mounts and assembled filter mount in

the plastic bag to the sampling location.

8. At the site, program the monitor to run for a 24 hr. period. Check the clock to ensure it is properly set and adjust as needed. Push the PROG button to set program 1. Only use program 1.
9. Program the start time by starting with the day of the week by pressing the WEEK button until today's day of the week appears. Press the HOUR button until your start hour appears. Press the MIN button until your start minute time appears.
10. Press the PROG button again and the program 1 OFF time appears. Press the WEEK button until the next day of the week appears, 24 hrs. later.

Press the HOUR button until your stop hour appears. Press the MIN button until your stop minute time appears.

11. Press the CLOCK button and the current time will appear again. Now check the program you have just set by pressing the PROG button to see the start date and time. Press it again to check the stop date and time to ensure it is a 24 hr. period.
12. Press the ON/OFF/AUTO button until the black bar at the bottom of the Clock screen appears under ON. Record the flow rate on the Field Data Sheet. Also record the elapsed time meter information from the meter on the field log sheet. Press the ON/OFF/AUTO button until the black bar at the bottom of the Clock screen appears under AUTO.
13. Get the filter assembly out of the plastic bag and place it firmly on the top of the monitor.
14. Wait for the monitor to start up and then mount the monitor securely at the site and lock it down with the lock system.
15. Complete the Field Data Sheet with sample location, start time/date, operator and appropriate weather

information. Check a local website for current weather conditions.

## **PART II: RETRIEVE THE MONITOR AND COMPLETE THE SAMPLING REQUIREMENTS**

1. Return to the sampling site and unlock the monitor locks and take the monitor and filter assembly down. Return to the office/house to complete paperwork and secure the filter.
2. Open the monitor case and record the reading of the elapsed time meter. It should indicate a difference of 24 hours. If not, the monitor did not run for 24 hours, check the battery and try to determine the cause of the short run. Please note on your Field Data Sheet if the monitor ran for more or less than 24 hours.
3. Turn the monitor back on to verify the flow rate at the end of the run and record it on the Field Data Sheet and turn it off. Complete the Field Data Sheet with all appropriate information including the weather information.
4. Open up the empty filter case. With gloves on, unscrew the filter assembly and remove the filter and place it carefully, filter side up, in the plastic case. Place a custody seal over the front part of the filter case and initial and date the seal. Place the filter case in a clean plastic bag for shipment later.
5. Close up the filter assembly and return it to the case.
6. Remove the battery from the monitor and charge it. Place the monitor back in its case.
7. Fill out the Chain of Custody Form with information from the Field Data Sheet and additional items required. Include a copy of the Field Data Sheet and Chain of Custody form with each sample to the lab. Keep a copy for your records.

**QUESTIONS, PLEASE CONTACT**

Contact Global Community Monitor  
info@gcmonitor.org

+1 510 233 1870  
[www.gcmonitor.org](http://www.gcmonitor.org)

*This picture caption uses the Caption 2 paragraph style and is inside a text box so that you can move it easily as needed to accompany a photo.*



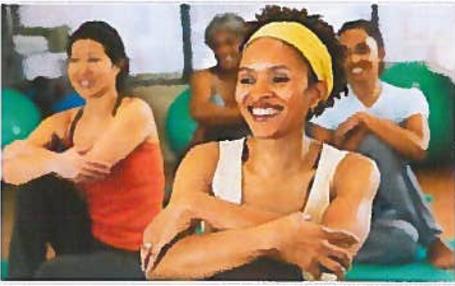
To setup a document for multiple column text, on the **Page Layout** tab, in the **Page Setup** group, click **Columns** and then click the number of columns you need. You can also click **More Columns** to specify column widths, the space between columns, or to automatically add a vertical line between columns.

To change the number of columns for just part of the document (or if you want text to wrap to just the top part of the page and a new article to start below – as shown on this page), insert a section break before the position where you want to start the new column layout. To do this, on the **Page Layout** tab, in the **Page Setup** group, click **Breaks** and then click the type of section break you need.

### Select a section break

When changing many types of page layout formatting for just part of the document—such as paper size, margins, or orientation, the best section break type to use is a **Next Page** section break because it automatically starts the new section on a new page. However, when changing the number of columns as you might in this newsletter, you may prefer to select a **Continuous** break. The continuous section break (used a few times throughout this template) starts a new section immediately after the preceding one. So, for example, you can have a three-column article followed by a four-column article, on the same page.

## HEADING 4



## Sidebar Setup

The sidebars in this template use simple, single-row tables for the gray-shaded headings and thermometer charts shown below for easy alignment.



## Add Sidebar Content

Adding content into a column to create a sidebar is no different from adding text. As noted earlier in this template, apply the styles provided for headings, sidebar text, and even pictures to align them quickly and easily.

## FAST FACTS

68%

Learn about these "thermometer charts" in the article at right.

42%

Cras ut blandit diam. Suspendis quis urna semper aliquam.



*Caption 2 style is used to add picture captions. Captions are in text boxes for easy placement relative to images.*

## Formatting Tips

by [Article Author]

This placeholder article provides the following tips:

- ➔ Creating "thermometer charts" using tables, as shown at left.
- ➔ Setting up multipage articles.
- ➔ Wrapping text around images
- ➔ Adding article titles and bylines

### Creating the sidebar thermometer charts

When you work in Word 2010 (or PowerPoint 2010), you have the full power of Excel 2010 charts (provided that Excel is installed on your computer). Insert a chart in Word from the **Insert** tab, in the **Illustrations** group. Charts are easy to create and use and automatically coordinate with your active document theme.

However, notice in the sidebar at left that the "thermometer charts" were created using single-row Word tables. This is because they automatically fit the tight space without having to remove any chart elements. And you might be surprised to learn that it's easy to make them essentially mathematically accurate.

To use a table as a thermometer chart, do the following:

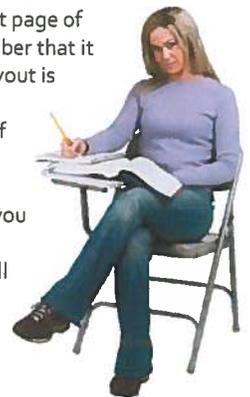
1. On the **Insert** tab, in the **Tables** group, click **Table** and then drag across the grid to select the first two cells in the first row. Click to insert a two-cell, one-row table.
2. Click in the table and then, on the **Table Tools Layout** tab, in the **Table** group, click **Properties**.

3. On the **Columns** tab of the **Table Properties** dialog box, change the **Measure In** setting to **Percentage**. You can then set the percentage to up to one decimal point in accuracy.

### Setting up multipage articles

Word is designed to allow text to automatically flow from one page to the next. So, when you want an article to continue on the next page, just keep typing.

In the case of this placeholder article, it is separated into two placeholder content controls (one on this page and another that starts at the top of the following page) just so that you can still see the layout of the following page while you begin adding your own text on this page. As mentioned on the first page of this template, remember that it might look like the layout is skewed when you replace a long piece of placeholder text by starting to type your own, but it is not. As you add your content, the layout that follows will move down automatically and back into position.



To remove the second placeholder control that starts immediately following this one, just select it and then press any key. You can then continue typing from this page and your text will automatically flow onto the next.

## Wrap text around images

The photos in this article that are angled with white borders are “floating” images. That is, they are setup for text to wrap around them—which is why they can span multiple columns in a three-column section.

Additionally, as mentioned earlier, the photo of the young woman in the body of this article is set to wrap text so that text will flow around the image as you add your own text.

To select text wrap settings, start by selecting the image and then do the following:

1. On the **Picture Tools Format** tab, in the **Arrange** group, click **Wrap Text** and then select either **Square**, **Tight**, or **Top and Bottom**—depending on how you want the text to wrap.

You might be happy with the default behavior as soon as you do this. Otherwise, continue to step two for customization options.

Notice the image of the young woman that’s

## Remove Image Backgrounds

by [Article Author]

within a text column on the preceding page. The background has been removed from that image to allow text to wrap directly around the subject.

Office 2010 introduced several new and improved picture formatting tools in Word, PowerPoint, and Excel. Among those is the **Remove Background** tool that you can use to remove backgrounds from your own images, similar to the sample image on the preceding page.



2. To set a specific position or control behavior (such as whether or not the image moves with text), on the **Picture Tools Format** tab, in the **Arrange** group, click **Position** and then click **More Layout Options**.

➔ On the **Text Wrapping** tab of the **Layout** dialog box, you can set a specific distance from the image for text to wrap and control whether text can wrap on both sides, one side only, or just above and below the image.

➔ On the **Position** tab of that dialog box, you can set a specific position for the image on the page and select or clear the option to allow the picture to move with text.

### Adding article titles, bylines, and dividers

The article titles and bylines for this newsletter are created in text boxes. This is because text can wrap around a text box just like it can around a picture. Similarly, the orange divider bars that you see on pages

To do this in Word, first

containing more than one article are shapes set to wrap text. So, these text boxes and shapes can easily span multiple columns without having to insert a section break or change the number of columns for just that portion of the page.

When you select a text box or a shape, on the **Drawing Tools Format** tab, in the **Arrange** group, you have the same settings for text wrapping and positioning that are described above for wrapping text around pictures.

Note that, because text is set to wrap around the orange divider bars, your article might appear to slip below or above a bar, depending upon length. To adjust the position of a divider bar shape to accommodate the length of your articles, just select the shape and then use the up and down arrow keys on your keyboard to nudge it to the proper position.

insert your image into the document (on the **Insert** tab, click **Picture**), and then select it. Then, on the **Picture Tools Format** tab, in the **Adjust** group, click **Remove Background**.

The **Remove Background** feature automatically displays what it believes to be the central subject of the image. However, it’s easy to adjust this if the immediate result is not what you need.

On the **Background Removal** tab, click **Mark Areas to Keep** or **Mark Areas to Remove** and then drag your mouse pointer in a line across the portion of the image you want to add or remove. When you are finished making adjustments, click **Keep Changes**.



# Title Lorem Ipsum Dolor

by [Article Author]

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## AROUND TOWN



### Lorem Ipsum

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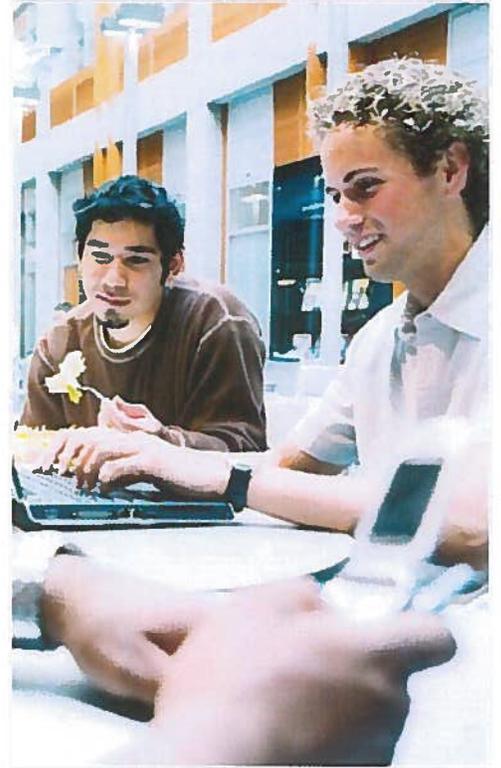
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## Particle Monitor Checklist Quarterly

[Street Address]  
[City, ST ZIP Code]

**[Addressee]**  
[Street Address]  
[City, ST ZIP Code]



## LABORATORY REPORT

September 24, 2012

Juan Reyhosa  
Southwest Organizing Project  
211 10th St SW  
Albuquerque, NM 87102

**RE: San Jose Bucket Brigade**

Dear Juan:

Enclosed are the results of the sample submitted to our laboratory on September 14, 2012. For your reference, these analyses have been assigned our service request number P1203734.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA200007; The American Industrial Hygiene Association, Laboratory #101661; United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), Certificate No. L11-203; Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-12-3; Minnesota Department of Health, NELAP Certificate No. 362188; Washington State Department of Ecology, ELAP Lab ID: C946, State of Utah Department of Health, NELAP Certificate No. CA01527Z012-Z; Los Angeles Department of Building and Safety, Approval No: TA00001. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**

*Kate Aguilera*

Digitally signed by Kate  
Aguilera  
Date: 2012.09.24  
11:59:38 -07'00'

Kate Aguilera  
Project Manager

Attachment 6

Client: Southwest Organizing Project  
Project: San Jose Bucket Brigade

Service Request No: P1203734

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## CASE NARRATIVE

The sample was received intact under chain of custody on September 14, 2012 and was stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

### Sulfur Analysis

The sample was analyzed for twenty sulfur compounds per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan.

### Volatile Organic Compound Analysis

The sample was also analyzed for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. According to the method, the use of Tedlar bags is considered a method modification.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of Columbia Analytical Services, Inc. dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to AALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

DETAIL SUMMARY REPORT

Client: Southwest Organizing Project  
 Project ID: San Jose Bucket Brigade

Service Request: P1203734

Date Received: 9/14/2012  
 Time Received: 10:00

ASTM D5504-08 - Sulfur Bag  
 TO-15 Modified - VOC Bags

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	ASTM D5504-08 - Sulfur Bag	TO-15 Modified - VOC Bags
2040 2nd Street SW	P1203734-001	Air	9/13/2012	16:17	X	X



**Sample Acceptance Check Form**

Client: Southwest Organizing Project Work order: P1203734  
 Project: San Jose Bucket Brigade  
 Sample(s) received on: 9/14/12 Date opened: 9/14/12 by: RMARTENIES

**Note:** This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |  | <u>Yes</u>                          | <u>No</u>                           | <u>N/A</u>                          |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were <b>sample containers</b> properly marked with client sample ID?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2 Container(s) <b>supplied by CAS</b> ?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3 Did <b>sample containers</b> arrive in good condition?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4 Were <b>chain-of-custody</b> papers used and filled out?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5 Did <b>sample container labels</b> and/or tags agree with custody papers?                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 6 Was <b>sample volume</b> received adequate for analysis?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7 Are samples within specified holding times?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 8 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 9 Was a <b>trip blank</b> received?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10 Were <b>custody seals</b> on outside of cooler/Box?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11 Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are <b>pH</b> preserved?                                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were <b>VOA vials</b> checked for presence/absence of air bubbles?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12 <b>Tubes:</b> Are the tubes capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Do they contain moisture?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13 <b>Badges:</b> Are the badges properly capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1203734-001.01	10 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2040 2nd Street SW  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1203734  
 CAS Sample ID: P1203734-001

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 6890A/GC13/SCD  
**Analyst:** Wade Henton  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 9/13/12  
**Time Collected:** 16:17  
**Date Received:** 9/14/12  
**Date Analyzed:** 9/14/12  
**Time Analyzed:** 10:29  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1203734  
**CAS Sample ID:** P120914-MB

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 6890A/GC13/SCD  
**Analyst:** Wade Henton  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Time Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/14/12  
**Time Analyzed:** 07:52  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2040 2nd Street SW  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1203734  
**CAS Sample ID:** P1203734-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 9/13/12  
**Date Received:** 9/14/12  
**Date Analyzed:** 9/14/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	5.0	ND	2.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	50	ND	27	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	20	ND	8.7	
67-64-1	Acetone	ND	50	ND	21	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	50	ND	20	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene Chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	ND	50	ND	16	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	50	ND	14	
78-93-3	2-Butanone (MEK)	ND	50	ND	17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2040 2nd Street SW  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1203734  
 CAS Sample ID: P1203734-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 9/13/12  
**Date Received:** 9/14/12  
**Date Analyzed:** 9/14/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
141-78-6	Ethyl Acetate	ND	10	ND	2.8	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
109-99-9	Tetrahydrofuran (THF)	ND	5.0	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
110-82-7	Cyclohexane	ND	10	ND	2.9	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
80-62-6	Methyl Methacrylate	ND	10	ND	2.4	
142-82-5	n-Heptane	ND	5.0	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	7.3	5.0	1.9	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project **CAS Project ID:** P1203734  
**Client Sample ID:** 2040 2nd Street SW **CAS Sample ID:** P1203734-001  
**Client Project ID:** San Jose Bucket Brigade

**Test Code:** EPA TO-15 Modified **Date Collected:** 9/13/12  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3 **Date Received:** 9/14/12  
**Analyst:** Simon Cao **Date Analyzed:** 9/14/12  
**Sampling Media:** 10 L Tedlar Bag **Volume(s) Analyzed:** 0.10 Liter(s)  
**Test Notes:**

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	
108-90-7	Chlorobenzene	12	5.0	2.6	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	m,p-Xylenes	ND	10	ND	2.3	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
103-65-1	n-Propylbenzene	ND	5.0	ND	1.0	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2040 2nd Street SW  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1203734  
 CAS Sample ID: P1203734-001

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 9/13/12  
**Date Received:** 9/14/12  
**Date Analyzed:** 9/14/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
No Compounds Detected			

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project

**Client Sample ID:** Method Blank

**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1203734

CAS Sample ID: P120914-MB

**Test Code:** EPA TO-15 Modified

**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3

**Analyst:** Simon Cao

**Sampling Media:** 10 L Tedlar Bag

**Test Notes:**
**Date Collected:** NA

**Date Received:** NA

**Date Analyzed:** 9/14/12

**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1203734  
 CAS Sample ID: P120914-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/14/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1203734  
**CAS Sample ID:** P120914-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/14/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1203734  
 CAS Sample ID: P120914-MB

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/14/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
No Compounds Detected			

**SURROGATE SPIKE RECOVERY RESULTS**

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1203734

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sampling Media:** 10 L Tedlar Bag(s)  
**Test Notes:**

**Date(s) Collected:** 9/13/12  
**Date(s) Received:** 9/14/12  
**Date(s) Analyzed:** 9/14/12

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P120914-MB	95	100	106	70-130	
2040 2nd Street SW	P1203734-001	97	98	106	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.



## LABORATORY REPORT

November 5, 2012

Juan Reyhosa  
Southwest Organizing Project  
211 10th St SW  
Albuquerque, NM 87102

**RE: San Jose Bucket Brigade**

Dear Juan:

Enclosed are the results of the sample submitted to our laboratory on October 26, 2012. For your reference, these analyses have been assigned our service request number P1204404.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA200007; The American Industrial Hygiene Association, Laboratory #101661; United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), Certificate No. L11-203; Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-12-3; Minnesota Department of Health, NELAP Certificate No. 362188; Washington State Department of Ecology, ELAP Lab ID: C946, State of Utah Department of Health, NELAP Certificate No. CA01527Z012-Z; Los Angeles Department of Building and Safety, Approval No: TA00001. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**



Digitally signed by Kate  
Aguilera  
Date: 2012.11.05  
12:32:08 -08'00'

Kate Aguilera  
Project Manager

Attachment 7

Client: Southwest Organizing Project  
Project: San Jose Bucket Brigade

Service Request No: P1204404

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### CASE NARRATIVE

The sample was received intact under chain of custody on October 26, 2012 and was stored in accordance with the analytical method requirements. The sample was received past the recommended holding time for the sulfur analysis. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

#### Sulfur Analysis

The sample was analyzed for twenty sulfur compounds per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan.

#### Volatile Organic Compound Analysis

The sample was also analyzed for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. According to the method, the use of Tedlar bags is considered a method modification.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of Columbia Analytical Services, Inc. dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

DETAIL SUMMARY REPORT

Client: Southwest Organizing Project  
 Project ID: San Jose Bucket Brigade

Service Request: P1204404

Date Received: 10/26/2012  
 Time Received: 10:15

ASTM D5504-08 - Sulfur Bag  
 TO-15 Modified - VOC Bags

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	ASTM D5504-08 - Sulfur Bag	TO-15 Modified - VOC Bags
Clifton Ave SE Next to Railyard	P1204404-001	Air	10/25/2012	08:09	X	X

Requested Turnaround Time in Business Days (Surcharges) please circle  
 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 10 Day-Standard

CAS Project No. **81024424**

**Company Name & Address (Reporting Information)**

Southwest Organizing Project (SWOP)  
 211 10th Street SW  
 Albuquerque, New Mexico 87102

Project Name  
**San Jose Bucket Brigade**  
 Project Number

CAS Contact:  
**Kate Adeliz**  
 Analysis Method

Project Manager  
**Juan Reyesa & Esther Abeyta**

Phone  
**(505) 907 3788**

Fax

Email Address for Result Reporting  
**juan@swop.net**

P.O. # / Billing Information  
 Southwest Organizing Project  
 211 10th Street SW  
 Albuquerque, New Mexico 87102  
 Sampler (Print & Sign)  
**Steven Abeyta**

Client Sample ID

Laboratory ID Number

Date Collected

Time Collected

Canister ID (Bar code # - AC, SC, etc)

Flow Controller ID (Bar code # - FC #)

Canister Start Pressure "Hg

Canister End Pressure "Hg/psig

Sample Volume

**10-15 Sulfurs**

Comments  
 e.g. Actual Preservative or specific instructions

**Decond Street of Clifton Ave SE**  
**Next to the railroad**

**D**

**10/25/12**

**8:09**

**Petroleum Smells  
 gear oil smell  
 headache  
 nauseous**

**Report Tier Levels - please select**

Tier I - Results (Default if not specified) \_\_\_\_\_

Tier II (Results + QC Summaries) \_\_\_\_\_

Tier III (Results + OC & Calibration Summaries) \_\_\_\_\_

Tier IV (Data Validation Package) 10% Surcharge \_\_\_\_\_

EDD required Yes / No  
 Type: \_\_\_\_\_ Units: \_\_\_\_\_

Relinquished by (Signature)

**[Signature]**

Date: **10-25-12**

Time: **9:54 AM**

Received by (Signature)

**[Signature]**

Date: **10/25/12**

Time: **9:54 AM**

Cooler / Blank Temperature \_\_\_\_\_ °C

Relinquished by (Signature)

**[Signature]**

Date: **10/25/12**

Time: **10:04 AM**

Received by (Signature)

**[Signature]**

Date: **10/25/12**

Time: **9:54 AM**

Cooler / Blank Temperature \_\_\_\_\_ °C

**Sample Acceptance Check Form**

Client: Southwest Organizing Project Work order: P1204404  
 Project: San Jose Bucket Brigade  
 Sample(s) received on: 10/26/12 Date opened: 10/26/12 by: MZAMORA

**Note:** This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |  | Yes                                 | No                                  | N/A                                 |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were <b>sample containers</b> properly marked with client sample ID?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2 Container(s) <b>supplied by CAS</b> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 3 Did <b>sample containers</b> arrive in good condition?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4 Were <b>chain-of-custody</b> papers used and filled out?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5 Did <b>sample container labels</b> and/or tags agree with custody papers?                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 6 Was <b>sample volume</b> received adequate for analysis?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7 Are samples within specified holding times?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 8 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 9 Was a <b>trip blank</b> received?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10 Were <b>custody seals</b> on outside of cooler/Box?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11 Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are <b>pH</b> preserved?                                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were <b>VOA vials</b> checked for presence/absence of air bubbles?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12 <b>Tubes:</b> Are the tubes capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Do they contain moisture?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13 <b>Badges:</b> Are the badges properly capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1204404-001.01	10 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** Clifton Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1204404  
**CAS Sample ID:** P1204404-001

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Wade Henton  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:** H3

**Date Collected:** 10/25/12  
**Time Collected:** 08:09  
**Date Received:** 10/26/12  
**Date Analyzed:** 10/26/12  
**Time Analyzed:** 12:34  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

H3 = Sample was received and analyzed past holding time.

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1204404  
**CAS Sample ID:** P121026-MB

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Wade Henton  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Time Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 10/26/12  
**Time Analyzed:** 08:01  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Clifton Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1204404  
**CAS Sample ID:** P1204404-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 10/25/12  
**Date Received:** 10/26/12  
**Date Analyzed:** 10/26/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	5.0	ND	2.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	87	50	46	27	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	20	ND	8.7	
67-64-1	Acetone	ND	50	ND	21	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	50	ND	20	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene Chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	ND	50	ND	16	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	50	ND	14	
78-93-3	2-Butanone (MEK)	ND	50	ND	17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Clifton Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1204404  
**CAS Sample ID:** P1204404-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 10/25/12  
**Date Received:** 10/26/12  
**Date Analyzed:** 10/26/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
141-78-6	Ethyl Acetate	ND	10	ND	2.8	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
109-99-9	Tetrahydrofuran (THF)	ND	5.0	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
110-82-7	Cyclohexane	ND	10	ND	2.9	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
80-62-6	Methyl Methacrylate	ND	10	ND	2.4	
142-82-5	n-Heptane	ND	5.0	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	9.9	5.0	2.6	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Clifton Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1204404  
 CAS Sample ID: P1204404-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 10/25/12  
**Date Received:** 10/26/12  
**Date Analyzed:** 10/26/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	
108-90-7	Chlorobenzene	8.5	5.0	1.8	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	m,p-Xylenes	ND	10	ND	2.3	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
103-65-1	n-Propylbenzene	ND	5.0	ND	1.0	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Clifton Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1204404  
 CAS Sample ID: P1204404-001

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 10/25/12  
**Date Received:** 10/26/12  
**Date Analyzed:** 10/26/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
No Compounds Detected			

RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1204404  
 CAS Sample ID: P121026-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 10/26/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1204404  
**CAS Sample ID:** P121026-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 10/26/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result μg/m <sup>3</sup>	MRL μg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1204404  
**CAS Sample ID:** P121026-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 10/26/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1204404  
CAS Sample ID: P121026-MB

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 10/26/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

<b>GC/MS Retention Time</b>	<b>Compound Identification</b>	<b>Concentration µg/m<sup>3</sup></b>	<b>Data Qualifier</b>
<hr/>			
No Compounds Detected			
<hr/>			

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1204404

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sampling Media:** 10 L Tedlar Bag(s)  
**Test Notes:**

**Date(s) Collected:** 10/25/12  
**Date(s) Received:** 10/26/12  
**Date(s) Analyzed:** 10/26/12

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P121026-MB	107	99	96	70-130	
Clifton Ave SE Next to Railyard	P1204404-001	109	104	92	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.  
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.



## LABORATORY REPORT

December 28, 2012

Juan Reyhosa  
Southwest Organizing Project  
211 10th St SW  
Albuquerque, NM 87102

**RE: San Jose Bucket Brigade**

Dear Juan:

Enclosed are the results of the sample submitted to our laboratory on December 13, 2012. For your reference, these analyses have been assigned our service request number P1205126.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA200007; The American Industrial Hygiene Association, Laboratory #101661; United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), Certificate No. L11-203; Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-12-3; Minnesota Department of Health, NELAP Certificate No. 362188; Washington State Department of Ecology, ELAP Lab ID: C946, State of Utah Department of Health, NELAP Certificate No. CA01527Z012-Z; Los Angeles Department of Building and Safety, Approval No: TA00001. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**



By Kate Aguilera at 2:49 pm, Dec 28, 2012

Kate Aguilera  
Project Manager

Attachment 8

Client: Southwest Organizing Project  
Project: San Jose Bucket Brigade

Service Request No: P1205126

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### CASE NARRATIVE

The sample was received intact under chain of custody on December 13, 2012 and was stored in accordance with the analytical method requirements. The sample was received past the recommended holding time for the sulfur analysis. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

#### Sulfur Analysis

The sample was analyzed for twenty sulfur compounds per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

#### Volatile Organic Compound Analysis

The sample was also analyzed for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. According to the method, the use of Tedlar bags is considered a method modification.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of Columbia Analytical Services, Inc. dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

DETAIL SUMMARY REPORT

Client: Southwest Organizing Project  
 Project ID: San Jose Bucket Brigade

Service Request: P1205126

Date Received: 12/13/2012  
 Time Received: 11:11

ASTM D5504-08 - Sulfur Bag  
 TO-15 Modified - VOC Bags

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected		
Western Refining Asphalt Terminal	P1205126-001	Air	12/11/2012	08:49	X	X



**Sample Acceptance Check Form**

Client: Southwest Organizing Project Work order: P1205126  
 Project: San Jose Bucket Brigade  
 Sample(s) received on: 12/13/12 Date opened: 12/13/12 by: RMARTENIES

**Note:** This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |    |   | Yes                                 | No                                  | N/A                                 |
|----|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1  | Were <b>sample containers</b> properly marked with client sample ID?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2  | Container(s) <b>supplied by CAS</b> ?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 3  | Did <b>sample containers</b> arrive in good condition?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4  | Were <b>chain-of-custody</b> papers used and filled out?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5  | Did <b>sample container labels</b> and/or tags agree with custody papers?                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 6  | Was <b>sample volume</b> received adequate for analysis?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7  | Are samples within specified holding times?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 8  | Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 9  | Was a <b>trip blank</b> received?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10 | Were <b>custody seals</b> on outside of cooler/Box?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|    | Location of seal(s)? _____ Sealing Lid?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were signature and date included?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were seals intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were custody seals on outside of sample container?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|    | Location of seal(s)? _____ Sealing Lid?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were signature and date included?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were seals intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11 | Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Is there a client indication that the submitted samples are <b>pH</b> preserved?                              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were <b>VOA vials</b> checked for presence/absence of air bubbles?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12 | <b>Tubes:</b> Are the tubes capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Do they contain moisture?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13 | <b>Badges:</b> Are the badges properly capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Are dual bed badges separated and individually capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1205126-001.01	10 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): Sample ID on bag and chain did not match, used the ID on bag for log in

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Refining Asphalt Terminal  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1205126  
**CAS Sample ID:** P1205126-001

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Mike Conejo  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:** H3

**Date Collected:** 12/11/12  
**Time Collected:** 08:49  
**Date Received:** 12/13/12  
**Date Analyzed:** 12/13/12  
**Time Analyzed:** 12:01  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

H3 = Sample was received and analyzed past holding time.

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1205126  
**CAS Sample ID:** P121213-MB

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Mike Conejo  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Time Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 12/13/12  
**Time Analyzed:** 09:05  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Refining Asphalt Terminal  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1205126  
**CAS Sample ID:** P1205126-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 12/11/12  
**Date Received:** 12/13/12  
**Date Analyzed:** 12/13/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result	MRL	Result	MRL	Data Qualifier
		$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	ppbV	ppbV	
115-07-1	Propene	ND	5.0	ND	2.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	91	50	48	27	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	20	ND	8.7	
67-64-1	Acetone	63	50	27	21	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	50	ND	20	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene Chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	ND	50	ND	16	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	50	ND	14	
78-93-3	2-Butanone (MEK)	ND	50	ND	17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Refining Asphalt Terminal  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1205126  
**CAS Sample ID:** P1205126-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 12/11/12  
**Date Received:** 12/13/12  
**Date Analyzed:** 12/13/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
141-78-6	Ethyl Acetate	ND	10	ND	2.8	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
109-99-9	Tetrahydrofuran (THF)	ND	5.0	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
110-82-7	Cyclohexane	ND	10	ND	2.9	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
80-62-6	Methyl Methacrylate	ND	10	ND	2.4	
142-82-5	n-Heptane	ND	5.0	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	11	5.0	3.0	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Refining Asphalt Terminal  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1205126  
**CAS Sample ID:** P1205126-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 12/11/12  
**Date Received:** 12/13/12  
**Date Analyzed:** 12/13/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	
108-90-7	Chlorobenzene	19	5.0	4.2	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	m,p-Xylenes	ND	10	ND	2.3	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
103-65-1	n-Propylbenzene	ND	5.0	ND	1.0	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Refining Asphalt Terminal  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1205126  
 CAS Sample ID: P1205126-001

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:** T

**Date Collected:** 12/11/12  
**Date Received:** 12/13/12  
**Date Analyzed:** 12/13/12  
**Volume(s) Analyzed:** 0.10 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
16.77	2-Ethyl-1-hexanol	22	
17.09	C13H28 Compound	21	

T = Analyte is a tentatively identified compound, result is estimated.

RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1205126  
 CAS Sample ID: P121213-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 12/13/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1205126  
**CAS Sample ID:** P121213-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 12/13/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result μg/m <sup>3</sup>	MRL μg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1205126  
**CAS Sample ID:** P121213-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 12/13/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1205126  
CAS Sample ID: P121213-MB

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 12/13/12  
**Volume(s) Analyzed:** 1.00 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
No Compounds Detected			

**SURROGATE SPIKE RECOVERY RESULTS**

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1205126

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS8  
**Analyst:** Elsa Moctezuma  
**Sample Type:** 10 L Tedlar Bag(s)  
**Test Notes:**

**Date(s) Collected:** 12/11/12  
**Date(s) Received:** 12/13/12  
**Date(s) Analyzed:** 12/13/12

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P121213-MB	108	98	96	70-130	
Western Refining Asphalt Terminal	P1205126-001	105	100	97	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.  
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.



## LABORATORY REPORT

February 15, 2013

Denny Larson  
Global Community Monitor  
6263 Bernhard Avenue  
Richmond, CA 94805

**RE: South Valley Bucket Brigade**

Dear Denny:

Enclosed are the results of the sample submitted to our laboratory on February 6, 2013. For your reference, these analyses have been assigned our service request number P1300488.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is certified by the NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA200007; The American Industrial Hygiene Association, Laboratory #101661; United States Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), Certificate No. L11-203; Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-12-3; Minnesota Department of Health, NELAP Certificate No. 494864; Washington State Department of Ecology, ELAP Lab ID: C946, State of Utah Department of Health, NELAP Certificate No. CA015272012-2; State of Maine Laboratory Certification Program, Certificate No. 2012039. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**

  
By Sue Anderson at 5:38 pm, Feb 15, 2013

For Kate Aguilera  
Project Manager

Attachment 9

Client: Global Community Monitor  
Project: South Valley Bucket Brigade

Service Request No: P1300488

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## CASE NARRATIVE

The sample was received intact under chain of custody on February 6, 2013 and was stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

### Sulfur Analysis

The sample was analyzed for twenty sulfur compounds per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

### Volatile Organic Compound Analysis

The sample was also analyzed for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. According to the method, the use of Tedlar bags is considered a method modification. Any analytes flagged with an X are not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of Columbia Analytical Services, Inc. dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

**DETAIL SUMMARY REPORT**

Client: Global Community Monitor  
 Project ID: South Valley Bucket Brigade

Service Request: P1300488

Date Received: 2/6/2013  
 Time Received: 10:30

ASTM D5504-08 - Sulfur Bag  
 TO-15 Modified - VOC Bags

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected		
Big Bear Petroleum	P1300488-001	Air	2/5/2013	00:00	X	X



**Sample Acceptance Check Form**

Client: Global Community Monitor Work order: P1300488  
 Project: South Valley Bucket Brigade  
 Sample(s) received on: 2/6/13 Date opened: 2/6/13 by: MZAMORA

**Note:** This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |  | Yes                                 | No                                  | N/A                                 |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were <b>sample containers</b> properly marked with client sample ID?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2 Container(s) <b>supplied by ALS</b> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 3 Did <b>sample containers</b> arrive in good condition?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4 Were <b>chain-of-custody</b> papers used and filled out?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 5 Did <b>sample container labels</b> and/or tags agree with custody papers?                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 6 Was <b>sample volume</b> received adequate for analysis?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7 Are samples <b>within</b> specified holding times?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 8 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 9 Was a <b>trip blank</b> received?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10 Were <b>custody seals</b> on outside of cooler/Box?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11 Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are <b>pH</b> preserved?                                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were <b>VOA vials</b> checked for presence/absence of air bubbles?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12 <b>Tubes:</b> Are the tubes capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Do they contain moisture?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13 <b>Badges:</b> Are the badges properly capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1300488-001.01	10 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_  
 Chain of Custody is missing time collected \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Global Community Monitor  
**Client Sample ID:** Big Bear Petroleum  
**Client Project ID:** South Valley Bucket Brigade

**CAS Project ID:** P1300488  
**CAS Sample ID:** P1300488-001

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 6890A/GC13/SCD  
**Analyst:** Mike Conejo  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 2/5/13  
**Time Collected:** NA  
**Date Received:** 2/6/13  
**Date Analyzed:** 2/6/13  
**Time Analyzed:** 12:27  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 1 of 1

**Client: Global Community Monitor**

**Client Sample ID: Method Blank**

**Client Project ID: South Valley Bucket Brigade**

CAS Project ID: P1300488

CAS Sample ID: P130206-MB

Test Code: ASTM D 5504-08  
 Instrument ID: Agilent 6890A/GC13/SCD  
 Analyst: Mike Conejo  
 Sample Type: 10 L Tedlar Bag  
 Test Notes:

Date Collected: NA  
 Time Collected: NA  
 Date Received: NA  
 Date Analyzed: 2/06/13  
 Time Analyzed: 08:13  
 Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Global Community Monitor

**Client Sample ID:** Big Bear Petroleum

**Client Project ID:** South Valley Bucket Brigade

CAS Project ID: P1300488

CAS Sample ID: P1300488-001

**Test Code:** EPA TO-15 Modified

**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

**Analyst:** Wida Ang

**Sample Type:** 10 L Tedlar Bag

**Test Notes:**
**Date Collected:** 2/5/13

**Date Received:** 2/6/13

**Date Analyzed:** 2/6/13

**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	5.0	ND	2.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	84	50	45	27	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	20	ND	8.7	
67-64-1	Acetone	ND	50	ND	21	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	50	ND	20	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene Chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	ND	50	ND	16	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	50	ND	14	
78-93-3	2-Butanone (MEK)	ND	50	ND	17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Global Community Monitor  
**Client Sample ID:** Big Bear Petroleum  
**Client Project ID:** South Valley Bucket Brigade

**CAS Project ID:** P1300488  
**CAS Sample ID:** P1300488-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 2/5/13  
**Date Received:** 2/6/13  
**Date Analyzed:** 2/6/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
141-78-6	Ethyl Acetate	ND	10	ND	2.8	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
109-99-9	Tetrahydrofuran (THF)	ND	5.0	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
110-82-7	Cyclohexane	ND	10	ND	2.9	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
80-62-6	Methyl Methacrylate	ND	10	ND	2.4	
142-82-5	n-Heptane	ND	5.0	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	15	5.0	4.1	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Global Community Monitor  
**Client Sample ID:** Big Bear Petroleum  
**Client Project ID:** South Valley Bucket Brigade

CAS Project ID: P1300488  
 CAS Sample ID: P1300488-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 2/5/13  
**Date Received:** 2/6/13  
**Date Analyzed:** 2/6/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	
108-90-7	Chlorobenzene	27	5.0	5.8	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	m,p-Xylenes	ND	10	ND	2.3	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
103-65-1	n-Propylbenzene	ND	5.0	ND	1.0	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Global Community Monitor

**Client Sample ID:** Big Bear Petroleum

**Client Project ID:** South Valley Bucket Brigade

CAS Project ID: P1300488

CAS Sample ID: P1300488-001

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified

**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

**Analyst:** Wida Ang

**Sample Type:** 10 L Tedlar Bag

**Test Notes:**

**Date Collected:** 2/5/13

**Date Received:** 2/6/13

**Date Analyzed:** 2/6/13

**Volume(s) Analyzed:** 0.10 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
No Compounds Detected			

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Global Community Monitor  
**Client Sample ID:** Method Blank  
**Client Project ID:** South Valley Bucket Brigade

CAS Project ID: P1300488  
 CAS Sample ID: P130206-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 2/6/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Global Community Monitor  
**Client Sample ID:** Method Blank  
**Client Project ID:** South Valley Bucket Brigade

CAS Project ID: P1300488  
 CAS Sample ID: P130206-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 2/6/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Global Community Monitor  
**Client Sample ID:** Method Blank  
**Client Project ID:** South Valley Bucket Brigade

**CAS Project ID:** P1300488  
**CAS Sample ID:** P130206-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 2/6/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Global Community Monitor  
**Client Sample ID:** Method Blank  
**Client Project ID:** South Valley Bucket Brigade

CAS Project ID: P1300488  
 CAS Sample ID: P130206-MB

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

Date Collected: NA  
 Date Received: NA  
 Date Analyzed: 2/6/13  
 Volume(s) Analyzed: 1.00 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
No Compounds Detected			

**SURROGATE SPIKE RECOVERY RESULTS**

Page 1 of 1

**Client:** Global Community Monitor  
**Client Project ID:** South Valley Bucket Brigade

CAS Project ID: P1300488

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag(s)  
**Test Notes:**

**Date(s) Collected:** 2/5/13  
**Date(s) Received:** 2/6/13  
**Date(s) Analyzed:** 2/6/13

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P130206-MB	96	104	106	70-130	
Big Bear Petroleum	P1300488-001	99	92	102	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.  
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.



## LABORATORY REPORT

April 18, 2013

Juan Reyhosa  
Southwest Organizing Project  
211 10th St SW  
Albuquerque, NM 87102

**RE: San Jose Bucket Brigade**

Dear Juan:

Enclosed are the results of the sample submitted to our laboratory on April 9, 2013. For your reference, these analyses have been assigned our service request number P1301459.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.caslab.com](http://www.caslab.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**

  
By Sue Anderson at 5:40 pm, Apr 18, 2013

For Kate Aguilera  
Project Manager

Attachment 10

Client: Southwest Organizing Project  
Project: San Jose Bucket Brigade

Service Request No: P1301459

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## CASE NARRATIVE

The sample was received intact under chain of custody on April 9, 2013 and was stored in accordance with the analytical method requirements. The sample was received past the recommended holding time for the sulfur analysis. The analysis was performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

### Sulfur Analysis

The sample was analyzed for twenty sulfur compounds per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

### Volatile Organic Compound Analysis

The sample was analyzed for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. According to the method, the use of Tedlar bags is considered a method modification. Any analytes flagged with an X are not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. dba ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of Columbia Analytical Services, Inc. dba ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*

## Columbia Analytical Services, Inc. dba ALS Environmental – Simi Valley

## Certifications, Accreditations, and Registrations

Agency	Web Site	Number
AIHA	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>	101661
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0694
DoD ELAP	<a href="http://www.pjlabs.com/search-accredited-labs">http://www.pjlabs.com/search-accredited-labs</a>	L11-203
Florida DOH (NELAP)	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E871020
Maine DHHS	<a href="http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm">http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm</a>	2012039
Minnesota DOH (NELAP)	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	494864
New Jersey DEP (NELAP)	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	CA009
New York DOH (NELAP)	<a href="http://www.wadsworth.org/labcert/elap/elap.html">http://www.wadsworth.org/labcert/elap/elap.html</a>	11221
Oregon PHD (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	CA200007
Pennsylvania DEP	<a href="http://www.depweb.state.pa.us/labs">http://www.depweb.state.pa.us/labs</a>	68-03307 (Registration)
Texas CEQ (NELAP)	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704413-12-3
Utah DOH (NELAP)	<a href="http://www.health.utah.gov/lab/labimp/certification/index.html">http://www.health.utah.gov/lab/labimp/certification/index.html</a>	CA01527201 2-2
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at [www.caslab.com](http://www.caslab.com), [www.alsglobal.com](http://www.alsglobal.com), or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

DETAIL SUMMARY REPORT

Client: Southwest Organizing Project  
 Project ID: San Jose Bucket Brigade

Service Request: P1301459

Date Received: 4/9/2013  
 Time Received: 10:10

ASTM D5504-08 - Sulfur Bag  
 TO-15 Modified - VOC Bags

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	ASTM D5504-08 - Sulfur Bag	TO-15 Modified - VOC Bags
Smith Ave SE Next to Railyard	P1301459-001	Air	4/7/2013	15:45	X	X



2655 Park Center Drive, Suite A  
 Simi Valley, California 93065  
 Phone (805) 526-7161  
 Fax (805) 526-7270

# Air - Chain of Custody Record & Analytical Service Request

<b>Requested Turnaround Time in Business Days (Surcharges) please circle</b> 1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (25%) 6 Day (20%)		CAS Project No. <b>P1301459</b>	
<b>Project Name</b> San Jose Bucket Brigade		<b>CAS Contact:</b> Kate Aguiliz	
<b>Project Number</b> South West Organizing Project 211 10th Street SW ALBUQUERQUE, NEW MEXICO 87102		<b>Analysis Method</b> SULFURS	
<b>P.O. # / Billing Information</b> ESTHER ABEYTA ESTHER ABEYTA		<b>Comments</b> e.g. Actual Preservative or specific instructions Petro lawn smell gear oil smell burning feeling in my nose headache feel the odor inside my lungs.	
<b>Sampler (Print &amp; Sign)</b> Esther Abeyta		<b>TD-15</b>	
<b>Client Sample ID</b> Deadend Street of Smith Ave SE Next to the railway Across from Western Asphalt Refining	<b>Laboratory ID Number</b> 1	<b>Flow Controller ID (Bar code # - FC #)</b> Canister Start Pressure "hg Canister End Pressure "hg/psig	<b>Sample Volume</b>
<b>Date Collected</b> 4/17/2013	<b>Time Collected</b> 3:45pm		
<b>Company Name &amp; Address (Reporting Information)</b> South West Organizing Project (SWOP) 211 10th Street SW ALBUQUERQUE, NEW MEXICO 87102		<b>Report Tier Levels - please select</b> Tier I - Results (Default if not specified) _____ Tier II (Results + QC Summaries) _____ Tier III (Results + QC & Calibration Summaries) _____ Tier IV (Data Validation Package) 10% Surcharge _____ EDD required Yes / No _____ Type: _____ Units: _____	
<b>Project Manager:</b> Juan Reynosa & Esther Abeyta Phone (805) 907 3788 Email Address for Result Reporting juan@swop.net	<b>Signature</b> Juan Reynosa	<b>Signature</b> Esther Abeyta	<b>Signature</b> UPS
<b>Relinquished by (Signature)</b> Esther Abeyta		<b>Relinquished by (Signature)</b> UPS	<b>Relinquished by (Signature)</b> [Signature]
<b>Date:</b> 4/18/2013 <b>Time:</b> 3:07 PM		<b>Date:</b> 4/18/2013 <b>Time:</b> 3:09 PM	
<b>Date:</b> _____ <b>Time:</b> _____		<b>Date:</b> 4/13/2010 <b>Time:</b> _____	
<b>Received by (Signature)</b> [Signature]		<b>Received by (Signature)</b> [Signature]	
<b>Received by (Signature)</b> [Signature]		<b>Received by (Signature)</b> [Signature]	
<b>Project Requirements (MRLs, QAPP)</b>		<b>Cooler / Blank Temperature</b> _____ °C	

**Sample Acceptance Check Form**

Client: Southwest Organizing Project Work order: P1301459  
 Project: San Jose Bucket Brigade  
 Sample(s) received on: 4/9/13 Date opened: 4/9/13 by: MZAMORA

**Note:** This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |  | Yes                                 | No                                  | N/A                                 |
|--|-------------------------------------|-------------------------------------|-------------------------------------|
| 1 Were <b>sample containers</b> properly marked with client sample ID?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2 Container(s) <b>supplied by ALS</b> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 3 Did <b>sample containers</b> arrive in good condition?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4 Were <b>chain-of-custody</b> papers used and filled out?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5 Did <b>sample container labels</b> and/or tags agree with custody papers?                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 6 Was <b>sample volume</b> received adequate for analysis?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7 Are samples within specified holding times?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 8 Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 9 Was a <b>trip blank</b> received?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10 Were <b>custody seals</b> on outside of cooler/Box?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were custody seals on outside of sample container?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Location of seal(s)? _____ Sealing Lid?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were signature and date included?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were seals intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11 Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Is there a client indication that the submitted samples are <b>pH</b> preserved?                                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Were <b>VOA vials</b> checked for presence/absence of air bubbles?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12 <b>Tubes:</b> Are the tubes capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Do they contain moisture?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13 <b>Badges:</b> Are the badges properly capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| Are dual bed badges separated and individually capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1301459-001.01	10 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** Smith Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1301459  
**CAS Sample ID:** P1301459-001

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Mike Conejo  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:** H3

**Date Collected:** 4/7/13  
**Time Collected:** 15:45  
**Date Received:** 4/9/13  
**Date Analyzed:** 4/9/13  
**Time Analyzed:** 10:33  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

H3 = Sample was received and analyzed past holding time.

## RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1301459  
**CAS Sample ID:** P130409-MB

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Mike Conejo  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Time Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 4/09/13  
**Time Analyzed:** 08:10  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Smith Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1301459  
**CAS Sample ID:** P1301459-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** John Rice  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 4/7/13  
**Date Received:** 4/9/13  
**Date Analyzed:** 4/10/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result μg/m <sup>3</sup>	MRL μg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	5.0	ND	2.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	76	50	40	27	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	20	ND	8.7	
67-64-1	Acetone	64	50	27	21	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	50	ND	20	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene Chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	ND	50	ND	16	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	50	ND	14	
78-93-3	2-Butanone (MEK)	ND	50	ND	17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Smith Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1301459  
 CAS Sample ID: P1301459-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** John Rice  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 4/7/13  
**Date Received:** 4/9/13  
**Date Analyzed:** 4/10/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
141-78-6	Ethyl Acetate	ND	10	ND	2.8	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
109-99-9	Tetrahydrofuran (THF)	ND	5.0	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
110-82-7	Cyclohexane	ND	10	ND	2.9	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
80-62-6	Methyl Methacrylate	ND	10	ND	2.4	
142-82-5	n-Heptane	ND	5.0	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	10	5.0	2.7	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Smith Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1301459  
**CAS Sample ID:** P1301459-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** John Rice  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 4/7/13  
**Date Received:** 4/9/13  
**Date Analyzed:** 4/10/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	
108-90-7	Chlorobenzene	26	5.0	5.6	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	m,p-Xylenes	ND	10	ND	2.3	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
103-65-1	n-Propylbenzene	ND	5.0	ND	1.0	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	13	5.0	2.3	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Smith Ave SE Next to Railyard  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1301459  
CAS Sample ID: P1301459-001

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** John Rice  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 4/7/13  
**Date Received:** 4/9/13  
**Date Analyzed:** 4/10/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

<b>GC/MS Retention Time</b>	<b>Compound Identification</b>	<b>Concentration µg/m<sup>3</sup></b>	<b>Data Qualifier</b>
<hr/>			
	No Compounds Detected		

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project

**Client Sample ID:** Method Blank

**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1301459

CAS Sample ID: P130410-MB

**Test Code:** EPA TO-15 Modified

**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

**Analyst:** John Rice

**Sample Type:** 10 L Tedlar Bag

**Test Notes:**
**Date Collected:** NA

**Date Received:** NA

**Date Analyzed:** 4/10/13

**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1301459  
**CAS Sample ID:** P130410-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** John Rice  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 4/10/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result μg/m <sup>3</sup>	MRL μg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

## RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

**CAS Project ID:** P1301459  
**CAS Sample ID:** P130410-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** John Rice  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 4/10/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1301459  
CAS Sample ID: P130410-MB

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** John Rice  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 4/10/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
No Compounds Detected			

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Project ID:** San Jose Bucket Brigade

CAS Project ID: P1301459

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** John Rice  
**Sample Type:** 10 L Tedlar Bag(s)  
**Test Notes:**

**Date(s) Collected:** 4/7/13  
**Date(s) Received:** 4/9/13  
**Date(s) Analyzed:** 4/10/13

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P130410-MB	109	100	91	70-130	
Smith Ave SE Next to Railyard	P1301459-001	101	96	99	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.  
 Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.





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2655 Park Center Dr., Suite A  
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[www.alsglobal.com](http://www.alsglobal.com)

## LABORATORY REPORT

August 9, 2013

Juan Reyhosa  
Southwest Organizing Project  
211 10th St SW  
Albuquerque, NM 87102

**RE: San Jose Bucket Brigade**

Dear Juan:

Enclosed are the results of the sample submitted to our laboratory on July 29, 2013. For your reference, these analyses have been assigned our service request number P1303259.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**

By Kate Aguilera at 2:13 pm, Aug 09, 2013

Kate Aguilera  
Project Manager

Attachment 11



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2655 Park Center Dr., Suite A  
Simi Valley, CA 93065  
T: +1 805 526 7161  
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[www.alsglobal.com](http://www.alsglobal.com)

Client: Southwest Organizing Project  
Project: San Jose Bucket Brigade

Service Request No: P1303259

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## CASE NARRATIVE

The sample was received intact under chain of custody on July 29, 2013 and was stored in accordance with the analytical method requirements. The sample was received past the recommended holding time for both analyses. The analyses were performed as soon as possible after receipt by the laboratory. The data is flagged to indicate the holding time exceedance. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

### Sulfur Analysis

The sample was analyzed for twenty sulfur compounds per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is not included on the laboratory's NELAP, DoD-ELAP, or AIHA-LAP scope of accreditation.

### Volatile Organic Compound Analysis

The sample was also analyzed for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. According to the method, the use of Tedlar bags is considered a method modification. This method is not included on the laboratory's AIHA-LAP scope of accreditation. Any analytes flagged with an X are not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*



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ALS Environmental - Simi Valley

Certifications, Accreditations, and Registrations

Agency	Web Site	Number
AIHA	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>	101661
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0694
DoD ELAP	<a href="http://www.pjllabs.com/search-accredited-labs">http://www.pjllabs.com/search-accredited-labs</a>	L11-203
Florida DOH (NELAP)	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E871020
Maine DHHS	<a href="http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm">http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm</a>	2012039
Minnesota DOH (NELAP)	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	494864
New Jersey DEP (NELAP)	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	CA009
New York DOH (NELAP)	<a href="http://www.wadsworth.org/labcert/elap/elap.html">http://www.wadsworth.org/labcert/elap/elap.html</a>	11221
Oregon PHD (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	CA200007
Pennsylvania DEP	<a href="http://www.depweb.state.pa.us/labs">http://www.depweb.state.pa.us/labs</a>	68-03307 (Registration)
Texas CEQ (NELAP)	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704413-12-3
Utah DOH (NELAP)	<a href="http://www.health.utah.gov/lab/labimp/certification/index.html">http://www.health.utah.gov/lab/labimp/certification/index.html</a>	CA01527201 2-2
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at [www.alsglobal.com](http://www.alsglobal.com), or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Southwest Organizing Project  
Project ID: San Jose Bucket Brigade

Service Request: P1303259

Date Received: 7/29/2013  
Time Received: 10:20

ASTM D5504-08 - Sulfur Bag  
TO-15 Modified - VOC Bags

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected	ASTM D5504-08 - Sulfur Bag	TO-15 Modified - VOC Bags
2419 William SE	P1303259-001	Air	7/26/2013	05:45	X	X



**ALS Environmental  
Sample Acceptance Check Form**

Client: Southwest Organizing Project

Work order: P1303259

Project: San Jose Bucket Brigade

Sample(s) received on: 7/29/13

Date opened: 7/29/13

by: MZAMORA

**Note:** This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |    |   | <u>Yes</u>                          | <u>No</u>                           | <u>N/A</u>                          |
|----|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1  | Were <b>sample containers</b> properly marked with client sample ID?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2  | Container(s) <b>supplied by ALS</b> ?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3  | Did <b>sample containers</b> arrive in good condition?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4  | Were <b>chain-of-custody</b> papers used and filled out?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5  | Did <b>sample container labels</b> and/or tags agree with custody papers?                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 6  | Was <b>sample volume</b> received adequate for analysis?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7  | Are samples within specified holding times?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 8  | Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 9  | Was a <b>trip blank</b> received?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10 | Were <b>custody seals</b> on outside of cooler/Box?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|    | Location of seal(s)? _____ Sealing Lid?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were signature and date included?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were seals intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were custody seals on outside of sample container?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|    | Location of seal(s)? _____ Sealing Lid?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were signature and date included?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were seals intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11 | Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Is there a client indication that the submitted samples are <b>pH</b> preserved?                              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were <b>VOA vials</b> checked for presence/absence of air bubbles?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12 | <b>Tubes:</b> Are the tubes capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Do they contain moisture?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13 | <b>Badges:</b> Are the badges properly capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Are dual bed badges separated and individually capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1303259-001.01	10 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_

**ALS ENVIRONMENTAL**

RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2419 William SE  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
 ALS Sample ID: P1303259-001

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Mike Conejo  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:** H3

Date Collected: 7/26/13  
 Time Collected: 05:45  
 Date Received: 7/29/13  
 Date Analyzed: 7/29/13  
 Time Analyzed: 10:39  
 Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

H3 = Sample was received and analyzed past holding time.

**ALS ENVIRONMENTAL**

RESULTS OF ANALYSIS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
 ALS Sample ID: P130729-MB

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Mike Conejo  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

Date Collected: NA  
 Time Collected: NA  
 Date Received: NA  
 Date Analyzed: 7/29/13  
 Time Analyzed: 09:35  
 Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2419 William SE  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
 ALS Sample ID: P1303259-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:** H3

**Date Collected:** 7/26/13  
**Date Received:** 7/29/13  
**Date Analyzed:** 7/29/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	5.0	ND	2.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	50	ND	27	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	20	ND	8.7	
67-64-1	Acetone	ND	50	ND	21	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	50	ND	20	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene Chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	ND	50	ND	16	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	50	ND	14	
78-93-3	2-Butanone (MEK)	ND	50	ND	17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

H3 = Sample was received and analyzed past holding time.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2419 William SE  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
 ALS Sample ID: P1303259-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:** H3

**Date Collected:** 7/26/13  
**Date Received:** 7/29/13  
**Date Analyzed:** 7/29/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
141-78-6	Ethyl Acetate	ND	10	ND	2.8	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
109-99-9	Tetrahydrofuran (THF)	ND	5.0	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
110-82-7	Cyclohexane	ND	10	ND	2.9	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
80-62-6	Methyl Methacrylate	ND	10	ND	2.4	
142-82-5	n-Heptane	ND	5.0	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	15	5.0	4.0	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

H3 = Sample was received and analyzed past holding time.

**ALS ENVIRONMENTAL**

RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2419 William SE  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
 ALS Sample ID: P1303259-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:** H3

**Date Collected:** 7/26/13  
**Date Received:** 7/29/13  
**Date Analyzed:** 7/29/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

ALS ENVIRONMENTAL

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	
108-90-7	Chlorobenzene	50	5.0	11	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	m,p-Xylenes	ND	10	ND	2.3	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	5.9	5.0	1.4	1.2	
95-47-6	o-Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
103-65-1	n-Propylbenzene	ND	5.0	ND	1.0	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

H3 = Sample was received and analyzed past holding time.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** 2419 William SE  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
ALS Sample ID: P1303259-001

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:** H3, T

**Date Collected:** 7/26/13  
**Date Received:** 7/29/13  
**Date Analyzed:** 7/29/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
9.34	Unidentified Compound	22	

T = Analyte is a tentatively identified compound, result is estimated.  
H3 = Sample was received and analyzed past holding time.

**ALS ENVIRONMENTAL**

RESULTS OF ANALYSIS

Page 1 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
 ALS Sample ID: P130729-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 7/29/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 2 of 4

**Client:** Southwest Organizing Project

**Client Sample ID:** Method Blank

**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259

ALS Sample ID: P130729-MB

**Test Code:** EPA TO-15 Modified

**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3

**Analyst:** Simon Cao

**Sample Type:** 10 L Tedlar Bag

**Test Notes:**

**Date Collected:** NA

**Date Received:** NA

**Date Analyzed:** 7/29/13

**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

Page 3 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
 ALS Sample ID: P130729-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 7/29/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259  
ALS Sample ID: P130729-MB

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/HP5973/HP6890/MS3  
**Analyst:** Simon Cao  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 7/29/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration $\mu\text{g}/\text{m}^3$	Data Qualifier
No Compounds Detected			

ALS ENVIRONMENTAL

SURROGATE SPIKE RECOVERY RESULTS

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1303259

Test Code: EPA TO-15 Modified  
Instrument ID: Tekmar AUTOCAN/HP5973/HP6890/MS3  
Analyst: Simon Cao  
Sample Type: 10 L Tedlar Bag(s)  
Test Notes:

Date(s) Collected: 7/26/13  
Date(s) Received: 7/29/13  
Date(s) Analyzed: 7/29/13

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P130729-MB	105	98	112	70-130	
2419 William SE	P1303259-001	95	94	116	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.





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[www.alsglobal.com](http://www.alsglobal.com)

## LABORATORY REPORT

October 1, 2013

Juan Reyhosa  
Southwest Organizing Project  
211 10th St SW  
Albuquerque, NM 87102

**RE: San Jose Bucket Brigade**

Dear Juan:

Enclosed are the results of the sample submitted to our laboratory on September 19, 2013. For your reference, these analyses have been assigned our service request number P1304155.

All analyses were performed according to our laboratory's NELAP and DoD-ELAP-approved quality assurance program. The test results meet requirements of the current NELAP and DoD-ELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP and DoD-ELAP-accredited analytes, refer to the certifications section at [www.alsglobal.com](http://www.alsglobal.com). Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

**ALS | Environmental**

By Kate Aguilera at 4:24 pm, Oct 02, 2013

Kate Aguilera  
Project Manager

Attachment 12



2655 Park Center Dr., Suite A  
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[www.alsglobal.com](http://www.alsglobal.com)

Client: Southwest Organizing Project  
Project: San Jose Bucket Brigade

Service Request No: P1304155

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## CASE NARRATIVE

The sample was received intact under chain of custody on September 19, 2013 and was stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the sample at the time of sample receipt.

### Sulfur Analysis

The sample was analyzed for twenty sulfur compounds per ASTM D 5504-08 using a gas chromatograph equipped with a sulfur chemiluminescence detector (SCD). All compounds with the exception of hydrogen sulfide and carbonyl sulfide are quantitated against the initial calibration curve for methyl mercaptan. This method is not included on the laboratory's NELAP, DoD-ELAP, or AIHA-LAP scope of accreditation.

### Volatile Organic Compound Analysis

The sample was also analyzed for volatile organic compounds and tentatively identified compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph/mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator. According to the method, the use of Tedlar bags is considered a method modification. This method is not included on the laboratory's AIHA-LAP scope of accreditation. Any analytes flagged with an X are not included on the laboratory's NELAP or DoD-ELAP scope of accreditation.

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*The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and ALS Environmental (ALS) is not responsible for utilization of less than the complete report.*

*Use of ALS Environmental (ALS)'s Name. Client shall not use ALS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to ALS any test result, tolerance or specification derived from ALS's data ("Attribution") without ALS's prior written consent, which may be withheld by ALS for any reason in its sole discretion. To request ALS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If ALS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use ALS's name or trademark in any Materials or Attribution shall be deemed denied. ALS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of ALS's name or trademark may cause ALS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.*



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ALS Environmental - Simi Valley

Certifications, Accreditations, and Registrations

Agency	Web Site	Number
AIHA	<a href="http://www.aihaaccreditedlabs.org">http://www.aihaaccreditedlabs.org</a>	101661
Arizona DHS	<a href="http://www.azdhs.gov/lab/license/env.htm">http://www.azdhs.gov/lab/license/env.htm</a>	AZ0694
DoD ELAP	<a href="http://www.pjilabs.com/search-accredited-labs">http://www.pjilabs.com/search-accredited-labs</a>	L11-203
Florida DOH (NELAP)	<a href="http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm">http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm</a>	E871020
Maine DHHS	<a href="http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm">http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/labcert.htm</a>	2012039
Minnesota DOH (NELAP)	<a href="http://www.health.state.mn.us/accreditation">http://www.health.state.mn.us/accreditation</a>	581572
New Jersey DEP (NELAP)	<a href="http://www.nj.gov/dep/oqa/">http://www.nj.gov/dep/oqa/</a>	CA009
New York DOH (NELAP)	<a href="http://www.wadsworth.org/labcert/elap/elap.html">http://www.wadsworth.org/labcert/elap/elap.html</a>	11221
Oregon PHD (NELAP)	<a href="http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx">http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx</a>	CA200007
Pennsylvania DEP	<a href="http://www.depweb.state.pa.us/labs">http://www.depweb.state.pa.us/labs</a>	68-03307 (Registration)
Texas CEQ (NELAP)	<a href="http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html">http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html</a>	T104704413-13-4
Utah DOH (NELAP)	<a href="http://www.health.utah.gov/lab/labimp/certification/index.html">http://www.health.utah.gov/lab/labimp/certification/index.html</a>	CA01627201 3-3
Washington DOE	<a href="http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html">http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html</a>	C946

Analyses were performed according to our laboratory's NELAP and DoD-ELAP approved quality assurance program. A complete listing of specific NELAP and DoD-ELAP certified analytes can be found in the certifications section at [www.alsglobal.com](http://www.alsglobal.com), or at the accreditation body's website.

Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact the laboratory for information corresponding to a particular certification.

ALS ENVIRONMENTAL

DETAIL SUMMARY REPORT

Client: Southwest Organizing Project  
Project ID: San Jose Bucket Brigade

Service Request: P1304155

Date Received: 9/19/2013  
Time Received: 09:55

ASTM D5504-08 - Sulfur Bag  
TO-15 Modified - VOC Bags

Client Sample ID	Lab Code	Matrix	Date Collected	Time Collected		
Western Asphalt Refinery	P1304155-001	Air	9/18/2013	14:30	X	X



**ALS Environmental  
Sample Acceptance Check Form**

Client: Southwest Organizing Project Work order: P1304155  
 Project: San Jose Bucket Brigade  
 Sample(s) received on: 9/19/13 Date opened: 9/19/13 by: MZAMORA

Note: This form is used for all samples received by ALS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or non-compliance. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

- |    |   |                                     |                                     |                                     |
|----|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1  | Were <b>sample containers</b> properly marked with client sample ID?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 2  | Container(s) <b>supplied by ALS</b> ?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3  | Did <b>sample containers</b> arrive in good condition?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 4  | Were <b>chain-of-custody</b> papers used and filled out?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 5  | Did <b>sample container labels</b> and/or tags agree with custody papers?                                     | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 6  | Was <b>sample volume</b> received adequate for analysis?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 7  | Are samples within specified holding times?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| 8  | Was proper <b>temperature</b> (thermal preservation) of cooler at receipt adhered to?                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 9  | Was a <b>trip blank</b> received?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 10 | Were <b>custody seals</b> on outside of cooler/Box?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|    | Location of seal(s)? _____ Sealing Lid?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were signature and date included?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were seals intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were custody seals on outside of sample container?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|    | Location of seal(s)? _____ Sealing Lid?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were signature and date included?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were seals intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 11 | Do containers have appropriate <b>preservation</b> , according to method/SOP or Client specified information? | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Is there a client indication that the submitted samples are <b>pH</b> preserved?                              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Were <b>VOA vials</b> checked for presence/absence of air bubbles?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Does the client/method/SOP require that the analyst check the sample pH and <u>if necessary</u> alter it?     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 12 | <b>Tubes:</b> Are the tubes capped and intact?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Do they contain moisture?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 13 | <b>Badges:</b> Are the badges properly capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|    | Are dual bed badges separated and individually capped and intact?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P1304155-001.01	10 L Tedlar Bag					

Explain any discrepancies: (include lab sample ID numbers): \_\_\_\_\_

RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

**ALS ENVIRONMENTAL**

RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Asphalt Refinery  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
 ALS Sample ID: P1304155-001

Test Code: ASTM D 5504-08  
 Instrument ID: Agilent 7890A/GC22/SCD  
 Analyst: Mike Conejo  
 Sample Type: 10 L Tedlar Bag  
 Test Notes:

Date Collected: 9/18/13  
 Time Collected: 14:30  
 Date Received: 9/19/13  
 Date Analyzed: 9/19/13  
 Time Analyzed: 10:27  
 Volume(s) Analyzed: 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

**ALS ENVIRONMENTAL**

RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
 ALS Sample ID: P130919-MB

**Test Code:** ASTM D 5504-08  
**Instrument ID:** Agilent 7890A/GC22/SCD  
**Analyst:** Mike Conejo  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Time Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/19/13  
**Time Analyzed:** 08:12  
**Volume(s) Analyzed:** 1.0 ml(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
7783-06-4	Hydrogen Sulfide	ND	7.0	ND	5.0	
463-58-1	Carbonyl Sulfide	ND	12	ND	5.0	
74-93-1	Methyl Mercaptan	ND	9.8	ND	5.0	
75-08-1	Ethyl Mercaptan	ND	13	ND	5.0	
75-18-3	Dimethyl Sulfide	ND	13	ND	5.0	
75-15-0	Carbon Disulfide	ND	7.8	ND	2.5	
75-33-2	Isopropyl Mercaptan	ND	16	ND	5.0	
75-66-1	tert-Butyl Mercaptan	ND	18	ND	5.0	
107-03-9	n-Propyl Mercaptan	ND	16	ND	5.0	
624-89-5	Ethyl Methyl Sulfide	ND	16	ND	5.0	
110-02-1	Thiophene	ND	17	ND	5.0	
513-44-0	Isobutyl Mercaptan	ND	18	ND	5.0	
352-93-2	Diethyl Sulfide	ND	18	ND	5.0	
109-79-5	n-Butyl Mercaptan	ND	18	ND	5.0	
624-92-0	Dimethyl Disulfide	ND	9.6	ND	2.5	
616-44-4	3-Methylthiophene	ND	20	ND	5.0	
110-01-0	Tetrahydrothiophene	ND	18	ND	5.0	
638-02-8	2,5-Dimethylthiophene	ND	23	ND	5.0	
872-55-9	2-Ethylthiophene	ND	23	ND	5.0	
110-81-6	Diethyl Disulfide	ND	12	ND	2.5	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

**ALS ENVIRONMENTAL**

RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Asphalt Refinery  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
 ALS Sample ID: P1304155-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 9/18/13  
**Date Received:** 9/19/13  
**Date Analyzed:** 9/19/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	5.0	ND	2.9	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	5.0	ND	1.0	
74-87-3	Chloromethane	ND	5.0	ND	2.4	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	5.0	ND	0.72	
75-01-4	Vinyl Chloride	ND	5.0	ND	2.0	
106-99-0	1,3-Butadiene	ND	5.0	ND	2.3	
74-83-9	Bromomethane	ND	5.0	ND	1.3	
75-00-3	Chloroethane	ND	5.0	ND	1.9	
64-17-5	Ethanol	ND	50	ND	27	
75-05-8	Acetonitrile	ND	5.0	ND	3.0	
107-02-8	Acrolein	ND	20	ND	8.7	
67-64-1	Acetone	ND	50	ND	21	
75-69-4	Trichlorofluoromethane	ND	5.0	ND	0.89	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	50	ND	20	
107-13-1	Acrylonitrile	ND	5.0	ND	2.3	
75-35-4	1,1-Dichloroethene	ND	5.0	ND	1.3	
75-09-2	Methylene Chloride	ND	5.0	ND	1.4	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	5.0	ND	1.6	
76-13-1	Trichlorotrifluoroethane	ND	5.0	ND	0.65	
75-15-0	Carbon Disulfide	ND	50	ND	16	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	ND	1.3	
75-34-3	1,1-Dichloroethane	ND	5.0	ND	1.2	
1634-04-4	Methyl tert-Butyl Ether	ND	5.0	ND	1.4	
108-05-4	Vinyl Acetate	ND	50	ND	14	
78-93-3	2-Butanone (MEK)	ND	50	ND	17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Asphalt Refinery  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
 ALS Sample ID: P1304155-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 9/18/13  
**Date Received:** 9/19/13  
**Date Analyzed:** 9/19/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	5.0	ND	1.3	
141-78-6	Ethyl Acetate	ND	10	ND	2.8	
110-54-3	n-Hexane	ND	5.0	ND	1.4	
67-66-3	Chloroform	ND	5.0	ND	1.0	
109-99-9	Tetrahydrofuran (THF)	ND	5.0	ND	1.7	
107-06-2	1,2-Dichloroethane	ND	5.0	ND	1.2	
71-55-6	1,1,1-Trichloroethane	ND	5.0	ND	0.92	
71-43-2	Benzene	ND	5.0	ND	1.6	
56-23-5	Carbon Tetrachloride	ND	5.0	ND	0.80	
110-82-7	Cyclohexane	ND	10	ND	2.9	
78-87-5	1,2-Dichloropropane	ND	5.0	ND	1.1	
75-27-4	Bromodichloromethane	ND	5.0	ND	0.75	
79-01-6	Trichloroethene	ND	5.0	ND	0.93	
123-91-1	1,4-Dioxane	ND	5.0	ND	1.4	
80-62-6	Methyl Methacrylate	ND	10	ND	2.4	
142-82-5	n-Heptane	ND	5.0	ND	1.2	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	ND	1.1	
108-10-1	4-Methyl-2-pentanone	ND	5.0	ND	1.2	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	ND	1.1	
79-00-5	1,1,2-Trichloroethane	ND	5.0	ND	0.92	
108-88-3	Toluene	8.3	5.0	2.2	1.3	
591-78-6	2-Hexanone	ND	5.0	ND	1.2	
124-48-1	Dibromochloromethane	ND	5.0	ND	0.59	
106-93-4	1,2-Dibromoethane	ND	5.0	ND	0.65	
123-86-4	n-Butyl Acetate	ND	5.0	ND	1.1	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Asphalt Refinery  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
 ALS Sample ID: P1304155-001

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 9/18/13  
**Date Received:** 9/19/13  
**Date Analyzed:** 9/19/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	5.0	ND	1.1	
127-18-4	Tetrachloroethene	ND	5.0	ND	0.74	
108-90-7	Chlorobenzene	34	5.0	7.5	1.1	
100-41-4	Ethylbenzene	ND	5.0	ND	1.2	
179601-23-1	m,p-Xylenes	ND	10	ND	2.3	
75-25-2	Bromoform	ND	5.0	ND	0.48	
100-42-5	Styrene	ND	5.0	ND	1.2	
95-47-6	o-Xylene	ND	5.0	ND	1.2	
111-84-2	n-Nonane	ND	5.0	ND	0.95	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	ND	0.73	
98-82-8	Cumene	ND	5.0	ND	1.0	
80-56-8	alpha-Pinene	ND	5.0	ND	0.90	
103-65-1	n-Propylbenzene	ND	5.0	ND	1.0	
622-96-8	4-Ethyltoluene	ND	5.0	ND	1.0	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ND	1.0	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ND	1.0	
100-44-7	Benzyl Chloride	ND	5.0	ND	0.97	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ND	0.83	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ND	0.83	
95-50-1	1,2-Dichlorobenzene	ND	5.0	ND	0.83	
5989-27-5	d-Limonene	ND	5.0	ND	0.90	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ND	0.52	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ND	0.67	
91-20-3	Naphthalene	ND	5.0	ND	0.95	
87-68-3	Hexachlorobutadiene	ND	5.0	ND	0.47	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Western Asphalt Refinery  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
ALS Sample ID: P1304155-001

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** 9/18/13  
**Date Received:** 9/19/13  
**Date Analyzed:** 9/19/13  
**Volume(s) Analyzed:** 0.10 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
No Compounds Detected			

**ALS ENVIRONMENTAL**

RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
 ALS Sample ID: P130919-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/19/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.50	ND	0.24	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.50	ND	0.20	
106-99-0	1,3-Butadiene	ND	0.50	ND	0.23	
74-83-9	Bromomethane	ND	0.50	ND	0.13	
75-00-3	Chloroethane	ND	0.50	ND	0.19	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	2.0	ND	0.87	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.50	ND	0.089	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	5.0	ND	2.0	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.50	ND	0.13	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.50	ND	0.16	
76-13-1	Trichlorotrifluoroethane	ND	0.50	ND	0.065	
75-15-0	Carbon Disulfide	ND	5.0	ND	1.6	
156-60-5	trans-1,2-Dichloroethene	ND	0.50	ND	0.13	
75-34-3	1,1-Dichloroethane	ND	0.50	ND	0.12	
1634-04-4	Methyl tert-Butyl Ether	ND	0.50	ND	0.14	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	5.0	ND	1.7	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
 ALS Sample ID: P130919-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/19/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result μg/m <sup>3</sup>	MRL μg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.50	ND	0.13	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.50	ND	0.10	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.50	ND	0.12	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ND	0.092	
71-43-2	Benzene	ND	0.50	ND	0.16	
56-23-5	Carbon Tetrachloride	ND	0.50	ND	0.080	
110-82-7	Cyclohexane	ND	1.0	ND	0.29	
78-87-5	1,2-Dichloropropane	ND	0.50	ND	0.11	
75-27-4	Bromodichloromethane	ND	0.50	ND	0.075	
79-01-6	Trichloroethene	ND	0.50	ND	0.093	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ND	0.092	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.50	ND	0.059	
106-93-4	1,2-Dibromoethane	ND	0.50	ND	0.065	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

# ALS ENVIRONMENTAL

## RESULTS OF ANALYSIS

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**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
 ALS Sample ID: P130919-MB

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/19/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

CAS #	Compound	Result µg/m <sup>3</sup>	MRL µg/m <sup>3</sup>	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.50	ND	0.074	
108-90-7	Chlorobenzene	ND	0.50	ND	0.11	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ND	0.073	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.50	ND	0.097	
541-73-1	1,3-Dichlorobenzene	ND	0.50	ND	0.083	
106-46-7	1,4-Dichlorobenzene	ND	0.50	ND	0.083	
95-50-1	1,2-Dichlorobenzene	ND	0.50	ND	0.083	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

ALS ENVIRONMENTAL

RESULTS OF ANALYSIS

Page 4 of 4

**Client:** Southwest Organizing Project  
**Client Sample ID:** Method Blank  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155  
ALS Sample ID: P130919-MB

**Tentatively Identified Compounds**

**Test Code:** EPA TO-15 Modified  
**Instrument ID:** Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
**Analyst:** Wida Ang  
**Sample Type:** 10 L Tedlar Bag  
**Test Notes:**

**Date Collected:** NA  
**Date Received:** NA  
**Date Analyzed:** 9/19/13  
**Volume(s) Analyzed:** 1.00 Liter(s)

GC/MS Retention Time	Compound Identification	Concentration µg/m <sup>3</sup>	Data Qualifier
No Compounds Detected			

**ALS ENVIRONMENTAL**

**SURROGATE SPIKE RECOVERY RESULTS**

Page 1 of 1

**Client:** Southwest Organizing Project  
**Client Project ID:** San Jose Bucket Brigade

ALS Project ID: P1304155

Test Code: EPA TO-15 Modified  
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9  
 Analyst: Wida Ang  
 Sample Type: 10 L Tedlar Bag(s)  
 Test Notes:

Date(s) Collected: 9/18/13  
 Date(s) Received: 9/19/13  
 Date(s) Analyzed: 9/19/13

Client Sample ID	ALS Sample ID	1,2-Dichloroethane-d4	Toluene-d8	Bromofluorobenzene	Acceptance Limits	Data Qualifier
		Percent Recovered	Percent Recovered	Percent Recovered		
Method Blank	P130919-MB	<b>101</b>	<b>101</b>	<b>95</b>	70-130	
Western Asphalt Refinery	P1304155-001	<b>102</b>	<b>100</b>	<b>97</b>	70-130	

Surrogate percent recovery is verified and accepted based on the on-column result.

Reported results are shown in concentration units and as a result of the calculation, may vary slightly from the on-column percent recovery.



SOUTHWEST ORGANIZING PROJECT

PROJECT: NAVAJO/DINE CARE

CLIENT # S045  
REPORT # 13-058

Attachment 13

SUBMITTED BY:  
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---

## Case Narrative

Date: February 1, 2013

### General Information

Client: Southwest Organizing Project  
Client Number: S045  
Report Number: 13-058  
Sample Description: 47mm Teflon Filters  
Sample Numbers: 13-U161

### Analysis

Analytes: Organic Carbon, Elemental Carbon  
Analytical Protocols: NIOSH 5040  
Analytical Notes: No problems were encountered during the analyses. Results have not been blank corrected.  
QA/QC Review: All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.  
Comments: If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.  
Disclaimer: This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory.

 2/1/13  
\_\_\_\_\_  
Project Manager Date  
Paul Duda

Client: S045 - SWOP  
Report Number: 13-058

---

Lab ID: 13-U161  
Site: 2600 Williams  
Sample Date: 1/26/13  
Volume: 7.200 +- 0.720 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM10

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
OC/EC		
OC	92.44 ± 5.977	12.84 ± 1.529
EC	17.24 ± 2.224	2.394 ± 0.3908
TC	109.7 ± 8.201	15.23 ± 1.902

---

## QA/QC Report

Client Name: SWOP  
 Project Number: S045 & A067  
 Analytical Technique: OC/EC  
 Sample Description: 47mm Quartz  
 Report Number: 13-058 & 13-059

---

### Calibration QC

#### *OC/EC Split*

Split ID: 10Q651 Date run	Average %OC of 20 data points	%OC Measured	Control Limits
2/1/2013	84.09	86.08%	75.68% - 92.50%
2/1/2013	84.09	85.58%	75.68% - 92.50%

#### *Sucrose Standard*

Standard ID: 191-3-5 Date run	Sucrose Std. Conc. µg/cm <sup>2</sup>	Measured Conc. µg/cm <sup>2</sup>	Percent Recovery
2/1/2013	28.06	27.87	99.3

### Blank Data

Date run	Analyte	Measured Conc. µg/cm <sup>2</sup>	MDL µg/cm <sup>2</sup>
2/1/2013	OC	<MDL	0.2
	EC	<MDL	0.2
2/1/2013	OC	<MDL	0.2
	EC	<MDL	0.2

### Duplicate Data

Sample ID	Analyte	Sample Conc. µg/cm <sup>2</sup>	Duplicate Conc. µg/cm <sup>2</sup>	RPD
12U161	OC	6.65	6.53	1.8
	EC	1.24	1.27	2.4
	TC	7.89	7.80	1.1
12U162	OC	19.83	20.25	2.1
	EC	0.39	0.36	8.0
	TC	20.22	20.61	1.9

$$RPD = [(sample - duplicate)/(sample + duplicate)/2] \times 100$$

#### QA/QC Limits

Sucrose Standard: 90 - 110% recovery

OC/EC Split: 75.68-92.50%

Duplicate: ± 20% RPD



# FIELD DATA SHEET

## Filter Identification

FILTER No. JS012412 PM 10

PROJECT San Jose Bucket Brigade

SITE LOCATION 2600 William  
487102

Esther Abeyta  
SITE OPERATOR Ruth  
Breda

DATE: FILTER SET OUT 1/25/13 TIME 5:54 pm

DATE: FILTER COLLECTION 1/26/13 TIME 5:58 pm

### Sample Duration

START ELAPSED TIME 764.9

### Sample Flow Rate

INITIAL FLOW RATE 5

STOP ELAPSED TIME 788.9

FINAL FLOW RATE 5

WIND SPEED & DIRECTION START 0 MPH STOP 17 mph S

BAROMETRIC PRESSURE START 30.21 (in) STOP 29.43 (in)

AMBIENT TEMPERATURE START 56°F STOP 52°F

WEATHER CONDITIONS: Cloudy

COMMENTS: Friday night, low traffic expected

---

---

## FOR LABORATORY USE ONLY

DATE RECEIVED \_\_\_\_\_ TECH \_\_\_\_\_

**RAW DATA**

Available upon request



SOUTHWEST ORGANIZING PROJECT

CLIENT # S045  
REPORT # 13-171

Attachment 14

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---

## Case Narrative

Date: April 10, 2013

### General Information

Client: Southwest Organizing Project  
Client Number: S045  
Report Number: 13-171  
Sample Description: 47mm Teflon and Quartz Filters  
Sample Numbers: 13-T498, 13-U410, 13-U411

### Analysis

Analytes: Particulate Mass, Organic Carbon, Elemental Carbon  
Analytical Protocols: Gravimetry, NIOSH 5040  
Analytical Notes: No problems were encountered during the analyses. Results have **not** been blank corrected.  
QA/QC Review: All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.  
Comments: If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.  
Disclaimer: This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory.



Project Manager  
Paul Duda

4/10/13

Date

## Southwest Organizing Project

### Gravimetric Data - Report # 13-171

Lab ID	Site	Sample Date	Particle Size	Tare Wt.(mg)	Gross Wt.(mg)	Net Wt.(ug)	Volume (m3)	Concentration (ug/m3)	Comments
13-T498	2600 Williams Abq NM	3/20/13	PM2.5	149.277	149.353	76	7.2	10.56	

Client: S045 - SWOP  
Report Number: 13-171

---

Lab ID: 13-U410  
Site: 2419 Williams St  
Sample Date: 3/27/13  
Volume: 7.200 +- 0.720 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM10

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
OC/EC		
OC	51.29 ± 3.892	7.124 ± 0.8942
EC	6.811 ± 1.668	0.9460 ± 0.2502
TC	58.10 ± 5.699	8.070 ± 1.130

---

Lab ID: 13-U411  
Site: 2600 Williams St  
Sample Date: 3/13/13  
Volume: 7.200 +- 0.720 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM10

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
OC/EC		
OC	46.84 ± 3.753	6.506 ± 0.8337
EC	6.811 ± 1.668	0.9460 ± 0.2502
TC	53.79 ± 5.421	7.471 ± 1.061

---

## QA/QC Report

Client Name: SWOP  
 Project Number: S045  
 Analytical Technique: OC/EC  
 Sample Description: 47 mm Quartz  
 Report Number: 13-171

Calibration QC

*OC/EC Split*

Split ID: 10Q651 Date run	Average %OC of 20 data points	%OC Measured	Control Limits
4/4/2013	81.26	81.08%	75.68% - 92.50%
	81.26	81.44%	75.68% - 92.50%
	81.26	81.78%	75.68% - 92.50%

*Sucrose Standard*

Standard ID: 191-3-5 Date run	Sucrose Std. Conc. µg/cm <sup>2</sup>	Measured Conc. µg/cm <sup>2</sup>	Percent Recovery
4/4/2013	28.06	29.3	104.4

*Sucrose Standard Control Limits: 90 - 110% recovery*

Blank Data

Date run	Analyte	Measured Conc. µg/cm <sup>2</sup>	MDL µg/cm <sup>2</sup>
4/4/2013	OC	<MDL	0.2
	EC	<MDL	0.2
4/4/2013	OC	<MDL	0.2
	EC	<MDL	0.2
4/4/2013	OC	<MDL	0.2
	EC	<MDL	0.2

Duplicate Data

Sample ID	Analyte	Sample Conc. µg/cm <sup>2</sup>	Duplicate Conc. µg/cm <sup>2</sup>	RPD
13U410	OC	3.69	3.76	1.9
	EC	0.49	0.40	20.2
	TC	4.18	4.16	0.5

*Duplicate Control Limits: ± 20% RPD*

$$RPD = [(sample - duplicate)/(sample + duplicate)/2] \times 100$$

*Control Limits do not apply where result < 5x detection limit*

*\*Note: the Split is composed of a "real world" 8"x10" sample (406 cm<sup>2</sup> deposit area) that the laboratory has visually inspected for homogeneity of deposit. The laboratory attempts to characterize the %OC by analyzing twenty 1.5 cm<sup>2</sup> sample aliquots. A split may be outside of the "control limits" if the sample is not completely homogenous, but still be considered "passing" as long as the result is not significantly off from those limits.*

13-171

Company Name <b>South West Organizing Project</b>		
Contact <b>Juan Reynosa</b>	Phone	
E Mail Address <b>juan@swap.net</b>	Fax	
Report Address <b>2110th St. SW</b>		
City <b>ABQ</b>	State <b>NM</b>	Zip <b>87102</b>
Billing Address <b>same</b>		
City	State	Zip
PO #	Product	

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**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

Analysis Requested						Turn Around Time	
						<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush _____ <small>Specify</small>	
						Remarks	
LabNet ID	Field Sample ID	Site	Sample Date	Volume (m <sup>3</sup> )	Particle Size		

LabNet ID	Field Sample ID	Site	Sample Date	Volume (m <sup>3</sup> )	Particle Size	Remarks
13T498		2600 William ABQ, NM	3/20/13	7.2	2.5	PM 2.5 ✓

Relinquished By (Signature, Date, Time) **Juan Reynosa 3-27-13 6:30 PM** Received By (Signature, Date, Time) **Juan Reynosa 3-27-13 6:30 PM** Notes **Start: cloudy, cool breezy winds S 10 mph, humidity 18% dewpt. 17°**

Relinquished By (Signature, Date, Time) **Juan Reynosa 4-2-13 9:15 AM** Received By (Signature, Date, Time) **UPS Desk 4-2-13 9:15 AM** Notes **stop: 67°F, NW 19 mph winds, humidity 71%**

**Jim Bell 4/3/13 9:15 10:00**

Company Name <b>SWOP</b>		
Contact <b>Juan Rey Nosa</b>	Phone <b>503-907-3788</b>	
F Mail Address <b>juan@swop.net</b>	Fax	
Hepod Address <b>211 10th St. SW</b>		
City <b>ABQ</b>	State <b>NM</b>	Zip <b>87102</b>
Billing Address <b>SAME</b>		
City	State	Zip
PO #	Project	

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**CHAIN-OF-CUSTODY RECORD**

Page 2 of 1

Analysis Requested						Turn Around Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush _____ Specify _____
LabNet ID	Field Sample ID	Site	Sample Date	Volume (m <sup>3</sup> )	Particle Size	Remarks
13-4410		2419 William's St. SE	3/27/13	7.2	PM.25	

LEC/OC

Requested By (Signature) [Signature] Date 3-27-13 6:30 PM  
 Approved By (Signature) [Signature] Date 3-27-13 6:30 PM  
 Requested By (Signature) Juan Reyes Date 4-2-13 9:15 AM  
 Approved By (Signature) [Signature] Date 4-2-13 9:15 AM

Notes: Start 4:20 PM, Sunny, clear, 78°F  
 Stop: cloudy, warm breezy  
 for Paul 4/3/13 10:00

Company Name <b>South West Org. Project</b>		
Contact <b>Juan Reynosa</b>	Phone <b>505-247-8832</b>	
E-Mail Address <b>Juan.eswap.net</b>	Fax	
Report Address <b>211 10th St. SW</b>		
City <b>Albuquerque</b>	State <b>NM</b>	Zip <b>87102</b>
Billing Address <b>same</b>		
City	State	Zip
PNL	Project	

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**CHAIN-OF-CUSTODY RECORD**

Analysis Requested						Turn/Around Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush _____ Specify _____	Remarks
LabNet ID	Field Sample ID	Site	Sample Date	Volume (m <sup>3</sup> )	Particle Size	✓ EC/OC	
13-441		2600 Williams St. APO, NM	3/13/13	7.2	PM.25		
Relinquished By (Signature) Date/Time						Received By (Signature) Date/Time	
Juan Reynosa 3-27-13 6:30pm						Juan Reynosa 3-27-13 6:30pm	
Relinquished By (Signature) Date/Time						Received By (Signature) Date/Time	
Juan Reynosa 4-2-13 9:15AM						UPS desk 4-2-13 9:15AM	
Notes: 6 PM. Clear sunny evening 69° Humidity 15% , Winds N 9 mph							

Luca Del 4/2/13 10:22

**RAW DATA**

Available upon request



SOUTHWEST ORGANIZING PROJECT

CLIENT # S045  
REPORT # 13-304

Attachment 15

SUBMITTED BY:  
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---

## Case Narrative

Date: June 24, 2013

### General Information

Client: Southwest Organizing Project  
Client Number: S045  
Report Number: 13-304  
Sample Description: 47mm Teflon and Quartz Filters  
Sample Numbers: 13-T536, 13-T537, 13T539, 13-U723, 13-U724

### Analysis

Analytes: Particulate Mass, Organic Carbon, Elemental Carbon  
Analytical Protocols: Gravimetry, NIOSH 5040  
Analytical Notes: No problems were encountered during the analyses. Results have not been blank corrected.  
QA/QC Review: All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.  
Comments: If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.  
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Project Manager  
Paul Duda

6/24/13  
Date

## Southwest Organizing Project

Gravimetric Data - Report # 13-304

Lab ID	Client ID	Site	Sample Date	Particle Size	Tare Wt.(mg)	Gross Wt.(mg)	Net Wt.(µg)	Volume (m³)	Concentration (µg/m³)	Comments
13-T539		2600 Williams St	4/3/13	PM2.5	140.165	140.216	51	7.2	7.08	
13-T537	2A	2600 Williams St	4/29/13	PM2.5	139.151	139.220	69	7.2	9.58	
13-T536	4A	105 Anderson Ave	5/14/13	PM2.5	139.305	139.347	42	7.2	5.83	

Client: S045 - SWOP  
Report Number: 13-304

---

Lab ID: 13-U723  
Client ID: 1A  
Site: 2600 Williams St  
Sample Date: 4/22/13  
Volume: 7.200 +- 0.720 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM2.5

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
OC/EC		
OC	52.54 ± 4.031	7.298 ± 0.9198
EC	3.336 ± 1.529	0.4633 ± 0.2174
TC	55.88 ± 5.560	7.761 ± 1.095

---

Lab ID: 13-U724  
Client ID: 3A  
Site: 105 Anderson Ave  
Sample Date: 5/ 7/13  
Volume: 7.200 +- 0.720 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM2.5

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
OC/EC		
OC	18.35 ± 2.363	2.548 ± 0.4155
EC	4.448 ± 1.668	0.6178 ± 0.2398
TC	22.80 ± 3.892	3.166 ± 0.6265

---

## QA/QC Report

Client Name: SWOP  
 Project Number: S045  
 Analytical Technique: OC/EC  
 Sample Description: 47 mm Quartz  
 Report Number: 13-304

---

### Calibration OC

#### OC/EC Split

Split ID: 10Q651 Date run	Average %OC of 20 data points	%OC Measured	Control Limits
6/18/2013	81.26	80.94%	75.68% - 92.50%
	81.26	80.49%	75.68% - 92.50%

#### Sucrose Standard

Standard ID: 191-3-5 Date run	Sucrose Std. Conc. $\mu\text{g}/\text{cm}^2$	Measured Conc. $\mu\text{g}/\text{cm}^2$	Percent Recovery
6/18/2013	28.06	28.31	100.9

*Sucrose Standard Control Limits: 90 - 110% recovery*

### Blank Data

Date run	Analyte	Measured Conc. $\mu\text{g}/\text{cm}^2$	MDL $\mu\text{g}/\text{cm}^2$
6/18/2013	OC	<MDL	0.2
	EC	<MDL	0.2
6/18/2013	OC	<MDL	0.2
	EC	<MDL	0.2

### Duplicate Data

Sample ID	Analyte	Sample Conc. $\mu\text{g}/\text{cm}^2$	Duplicate Conc. $\mu\text{g}/\text{cm}^2$	RPD
13U723	OC	3.78	3.78	0.0
	EC	0.24	0.29	18.9
	TC	4.02	4.07	1.2

*Duplicate Control Limits:  $\pm 20\%$  RPD*

*RPD = [(sample - duplicate)/(sample + duplicate)/2] x 100*

*Control Limits do not apply where result < 5x detection limit*

*\*Note: the Split is composed of a "real world" 8"x10" sample (406 cm<sup>2</sup> deposit area) that the laboratory has visually inspected for homogeneity of deposit. The laboratory attempts to characterize the %OC by analyzing twenty 1.5 cm<sup>2</sup> sample aliquots. A split may be outside of the "control limits" if the sample is not completely homogenous, but still be considered "passing" as long as the result is not significantly off from those limits.*

Company Name <b>South West Org. Project</b>	
Contact <b>Juan Reynosa</b>	Phone <b>505-247-8832</b>
E-Mail Address <b>juan.eswap.net</b>	Fax
Report Address <b>SAME</b>	
City	State
Billing Address <b>SAME</b>	
City	State
PO #	Project

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 clin@chesterlab.net

## CHAIN-OF-CUSTODY RECORD

Page 1 of 1

LabNet ID	Field Sample ID	Site	Sample Date	Volume (m <sup>3</sup> )	Particle Size	Analysis Requested		Turn Around Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush _____ Specify _____	Remarks
15T498		2110 Milling 4/13/2013 ABQ, NM	7.2	2.5	PM 2.5				13T539

Notes: start: 4/13 5:05 PM sunny, 66°F, AW 18 mph  
 11% humidity, dew 18.0 36.93.1  
 stop 4/13 5:15 PM, 70°F, sunny, 10.6 mph  
 Juan Reynosa 6/13/13 10:37 AM  
 Juan Reynosa 6/13/13 6:01 PM  
 Retrieved By: (Signature) Date: Time  
 Retrieved By: (Signature) Date: Time









**RAW DATA**

Available upon request



SOUTHWEST ORGANIZING PROJECT

CLIENT # S045  
REPORT # 13-466

Attachment 16

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---

## Case Narrative

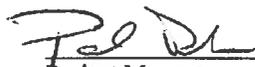
Date: September 30, 2013

### General Information

Client: Southwest Organizing Project  
Client Number: S045  
Report Number: 13-466  
Sample Description: 47mm Teflon and Quartz Filters  
Sample Numbers: 13-T538, 13-T536, 13T496, 13-U1155 – 13-U1158

### Analysis

Analytes: Particulate Mass, Organic Carbon, Elemental Carbon  
Analytical Protocols: Gravimetry, NIOSH 5040  
Analytical Notes: No problems were encountered during the analyses. Results have not been blank corrected.  
QA/QC Review: All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.  
Comments: If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.  
Disclaimer: This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory.



Project Manager  
Paul Duda

9/30/13  
Date

**Southwest Organizing Project**  
**Gravimetric Data - Report # 13-466**

Lab ID	Site	Sample Date	Particle Size	Tare Wt.(mg)	Gross Wt.(mg)	Net Wt.(µg)	Volume (m <sup>3</sup> )	Concentration (µg/m <sup>3</sup> )	Comments
13-T538	Woodward & William ABQ NM	6/10/13	PM2.5	139.885	139.992	107	7.2	14.86	
13-T535	Woodward & Broadway ABQ NM	8/13/13	PM2.5	140.241	140.786	545	7.2	75.69	
13-T496	Stadium & Commercial ABQ NM	9/4/13	PM2.5	149.107	149.171	64	7.2	8.89	

Client: S045 - SWOP  
Report Number: 13-466

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Lab ID: 13-U1155  
Site: Woodward & William ABQ NM  
Sample Date: 6/17/13  
Filter Lot #: JS120512  
Volume: 7.200 +- 0.360 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM2.5

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
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OC/EC

OC	48.79 ± 3.892	6.776 ± 0.6380
EC	1.946 ± 1.529	0.2703 ± 0.2128
TC	50.74 ± 5.282	7.047 ± 0.8138

---

Lab ID: 13-U1156  
Site: Woodward & William ABQ NM  
Sample Date: 7/30/13  
Filter Lot #: JS120512  
Volume: 7.200 +- 0.360 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM2.5

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
---------	------------------	-------------------------

OC/EC

OC	66.72 ± 4.726	9.267 ± 0.8034
EC	7.367 ± 1.807	1.023 ± 0.2561
TC	74.09 ± 6.533	10.29 ± 1.043

---

Lab ID: 13-U1157  
Site: Woodward & Broadway ABQ NM  
Sample Date: 8/23/13  
Filter Lot #: JS120512  
Volume: 7.200 +- 0.360 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM2.5

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
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OC/EC

OC	66.58 ± 4.726	9.247 ± 0.8029
EC	12.65 ± 2.085	1.757 ± 0.3026
TC	79.23 ± 6.672	11.00 ± 1.078

---

Client: S045 - SWOP  
Report Number: 13-466

---

Lab ID: 13-U1158  
Site: Stadium & Commercial ABQ NM  
Sample Date: 9/ 3/13  
Filter Lot #: JS120512  
Volume: 7.200 +- 0.360 m<sup>3</sup>  
Deposit Area: 13.9 cm<sup>2</sup>  
Size Fraction: PM2.5

Analyte	<u>µg/filter</u>	<u>µg/m<sup>3</sup></u>
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OC/EC

OC	55.60 ± 4.170	7.722 ± 0.6961
EC	5.143 ± 1.668	0.7143 ± 0.2344
TC	60.60 ± 5.838	8.417 ± 0.9136

---

## QA/QC Report

Client Name: SWOP  
 Project Number: S045  
 Analytical Technique: OC/EC - NIOSH 5040  
 Sample Description: 47 mm Quartz  
 Report Number: 13-466

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### Calibration QC

#### OC/EC Split

Split ID: 10Q651 Date run	Average %OC of 20 data points	%OC Measured	Control Limits
9/27/2013	81.22	81.18%	73.09% - 89.34%
9/27/2013	81.22	80.44%	73.09% - 89.34%

#### Sucrose Standard

Standard ID: 191-3-5 Date run	Sucrose Std. Conc. µg/cm <sup>2</sup>	Measured Conc. µg/cm <sup>2</sup>	Percent Recovery
9/27/2013	28.06	28.69	102.2

*Sucrose Standard Control Limits: 90 - 110% recovery*

### Blank Data

Date run	Analyte	Measured Conc. µg/cm <sup>2</sup>	MDL µg/cm <sup>2</sup>
9/27/2013	OC	<MDL	0.2
	EC	<MDL	0.2
9/27/2013	OC	<MDL	0.2
	EC	<MDL	0.2

### Duplicate Data

Date run Sample ID	Analyte	Sample Conc. µg/cm <sup>2</sup>	Duplicate Conc. µg/cm <sup>2</sup>	RPD
9/27/2013	OC	3.51	3.65	3.9
13U1155	EC	0.14	0.17	19.4
	TC	3.65	3.82	4.6

*Duplicate Control Limits: ± 20% RPD*

$$RPD = [(sample - duplicate)/(sample + duplicate)/2] \times 100$$

*Control Limits do not apply where result < 5x detection limit*

*\*Note: the Split is composed of a "real world" 8"x10" sample (406 cm<sup>2</sup> deposit area) that the laboratory has visually inspected for homogeneity of deposit. The laboratory attempts to characterize the %OC by analyzing twenty 1.5 cm<sup>2</sup> sample aliquots. A split may be outside of the "control limits" if the sample is not completely homogenous, but still be considered "passing" as long as the result is not significantly off from those limits.*

# CHESTER LabNet

12242 SW Garden Place  
Tigard, OR 97223  
(503) 624-2183  
Fax (503) 624-2653  
cln@chesterlab.net

## CHAIN-OF-CUSTODY RECORD

Company Name <b>Southwest Organizing Project</b>	
Contact <b>Juan Reynosa</b>	Phone <b>505 907 3788</b>
E-Mail Address <b>juan@swop.net</b>	Fax
Report Address <b>211 10th St. SE</b>	Zip <b>87102</b>
City <b>ALBUQUERQUE</b>	State <b>NM</b>
Billing Address <b>Same</b>	State
City	Zip
PO #	Project

LabNet ID	Field Sample ID	Site	Sample Date	Volume (m <sup>3</sup> )	Particle Size	Analysis Requested					Turn Around Time <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush _____ Specify _____	Remarks	
13T0538		Woodward & Williams ABQ, NM	6/10/13	7.2		PM 2.5	EC/OC						
13T0535		Woodward & Broadway ABQ, NM	8/13/13	7.2									
13T0496		Stradium & Commercial ABQ, NM	9/4/13	7.2									
13-U1155													
13I20512		Woodward & Williams ABQ, NM	6/17/13	7.2	PM 2.5								
13-U1156													
13I20512		Woodward & Williams	7/30/13	7.2	PM 2.5								

Notes: temperature = 6 °C on receipt

Relinquished By: (Signature) *[Signature]* Date/Time 9/23/13 3:40pm  
 Received By: (Signature) *[Signature]* Date/Time 9/23/13 4:03 PM  
 Relinquished By: (Signature) *[Signature]* Date/Time 9/24/13 10:25  
 Received By: (Signature) *[Signature]* Date/Time 9/24/13 10:25



**RAW DATA**

Available upon request



July 2012						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 1, 2012	July 2, 2012	July 3, 2012	July 4, 2012	July 5, 2012	July 6, 2012	July 7, 2012
	Olivia-Gibson between Broadway & Freeway Smelled Spray paint felt headache , burning/ stinging eyes taste paint		Esther smelled a sulfur outside her home 2419 William SE --two blacks to the north odor had a moldy smell. Felt nausea Taste metallic Time: 5:40 am to 5:50 am		Esther light smell of gear oil. William St & Smith St - felt nauseous -- 3:15pm	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 8, 2012	July 9, 2012	July 10, 2012	July 11, 2012	July 12, 2012	July 13, 2012	July 14, 2012
	Deanna -- Gibson between Broadway & Freeway Smelled Spray paint felt headache , burning/ stinging eyes taste paint Time 5:13 pm	Deanna -- William & Bethel near 2822 William - Smelled cleaning products very strong -- Nose had a burning feeling -- tasted nothing Time 7:32 pm		101 Anderson SE Honstein Bear had a truck MB on Site Fuel Co. either fill or extracting out of a pipe. Smell of oil Time 3:10-3:20 pm -- felt nausea		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 15, 2012	July 16, 2012	July 17, 2012	July 18, 2012	July 19, 2012	July 20, 2012	July 21, 2012
		Esther William & Thaxton - smelled gasoline was a short distance from Honstein Drove by Honstein saw no activity at the facility. Felt a headache Taste - ? Time 3:10- 3: 20 pm		Across from San Jose Church Deanna saw smog smelled spray paint felt headache, burning /stinging eyes & sore throat and taste of paint Time 9:53 pm -- Olivia Gibson between Broadway & Freeway Smelled Spray paint felt headache ,burning/ stinging eyes taste paint Time 7:21 pm		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 22, 2012	July 23, 2012	July 24, 2012	July 25, 2012	July 26, 2012	July 27, 2012	July 28, 2012
	Broadway between Bethel & San Jose Olivia smelled a solvent \ Felt a headache, burning/stinging eyes & sore throat Couldn't describe taste Time 6:47 pm	Trains idling on William St near Bethel 5:45am	Esther smell of gear oil. Around the 1800 block of William SE -- 5: 45am			Steve smelled the trains idling behind his home 2419 William SE Smelled diesel fumes Couldn't taste anything because he is use to the smell. Time: 4:30 to 5:30pm
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 29, 2012	July 30, 2012	July 31, 2012				
Steve smelled the trains idling behind his home 2419 William SE Smelled diesel fumes - Didn't taste anything because he is use to the smell Time: 7:30 to 8:40 am		Steve riding bike to work a block away north from Honstien Bear smelled a terrible odor of gasoline Felt nothing -- Taste nothing because he is use to the odor. Time 6:30am				

August 2012						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			August 1, 2012	August 2, 2012	August 3, 2012	August 4, 2012
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
August 5, 2012	August 6, 2012	August 7, 2012	August 8, 2012	August 9, 2012	August 10, 2012	August 11, 2012
Steve & Esther smelled a strong gear oil/ motor oil coming from Western Asphalt on second St. Esther felt burning in her nose & nausea Taste metallic Time: 12:09 -12:19 pm			Esther drove around neighborhood. 3:09 pm Western Asphalt on Second St. had white smoke coming out from a piping on the roof building where there is a blue tank inside a garage. Park for 30 mintues took pictures. smoke blew to the south and then shifted to the north. 2 men left the facility in a white truck around 4:02pm. 3:49 pm ? Woodward & William smelled a moldy smell in this area. Park for 10 mintues smell could be coming from pile of manure.	3:00 smelled sulfur in the air. 3:40 ha a group at my house they smell the sulfuf. 4:00 toured the neighborhood corner of William & Woodward we could smell a molgy smell. In front of GE we smelled a different odor. One of the people touring stating the smell was paint.		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
August 12, 2012	August 13, 2012	August 14, 2012	August 15, 2012	August 16, 2012	August 17, 2012	August 18, 2012
			3:35 pm Quick rite Dust flying all over 3:50pm John St near Marcy's house moldy smell could be coming from the paint & body shop behind her house.			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
August 19, 2012	August 20, 2012	August 21, 2012	August 22, 2012	August 23, 2012	August 24, 2012	August 25, 2012
	4:15 - 4:25 pm Western Asphalt on Second St. smelled oil like odors after being parked for 5 mintues felt nose burning , sore throat . Wind was blowing to the west. Couldn't take sample wind started to kick up along with rain spinkles.	Olivia Greathouse smelled 10:06pm Big Bear Hoinstein petroleum				
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
August 26, 2012	August 27, 2012	August 28, 2012	August 29, 2012	August 30, 2012	August 31, 2012	
		Olivia Greathouse Big Bear Hoinstein 8:28 am smelled gas.	Olivia Greathouse on 2nd St. 8:30am smelled an odor of tar.			

**September 2012**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						September 1, 2012
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 2, 2012	September 3, 2012	September 4, 2012	September 5, 2012	September 6, 2012	September 7, 2012	September 8, 2012
			Olivia Greathouse 8:40am Cement plant saw grayish dust, construction dust describe as white dust 8:44am Western Asphalt smelled gas 1:29pm Big Bear smelled gas & asphalt	Olivia Greathouse Western Asphalt time morning smelled gas and exhaust		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 9, 2012	September 10, 2012	September 11, 2012	September 12, 2012	September 13, 2012	September 14, 2012	September 15, 2012
	6:02am Holstein huge Petroleum truck waiting outside gate to enter facility no odor	5:45am 12 engine trains idling along William St. Between Bethel going south toward Woodward St smell of diesel fuel around the area. Olivia Greathouse 8:27am 2nd St. smelled sewage water smelled like bathroom	Western asphalt Second St. very little smell of gear oil 3:10pm Olivia Greathouse 8:28am Big Bear smelled gas 12:11pm Big bear smelled gas	Sample taken in front of Western asphalt. Smell was very strong. Felt nausea, nose burning, felt the odor in my lungs and got a headache. Olivia Greathouse 2:29pm William St SE smelled asphalt	3:15- 3:25pm Dead end Olge St. Smell coming from Western Asphalt - Smell odor of gear oil wind blowing from the west toward the east. Felt the odor in my lungs. Later felt nausea and got a headache. Deanna Baca reported 4:58pm Trumble & Commerical idling trains smelled petroleum/gas diesel. 5:00pm Big Bear Hoinstein idling truck smelled like burning rubber, petrolreum/gas diesel	7:00 pm 2nd and Woodward AAA Plumbing smell like shit 7:02pm corner of William & Woodward St. fecal stench
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 16, 2012	September 17, 2012	September 18, 2012	September 19, 2012	September 20, 2012	September 21, 2012	September 22, 2012
	Quick rite 6:03 am Dusts lots of dusts blowing into the air coming from Quick Rite. Took pictures. 3:17pm Gear oil smell end of 5mith St and Olge St. 3:21pm. Spoke to a woman on Olge St. She said the odor smell like roofing tar. Felt my nose burning and got a headache	5:58 305 Wheeler SE smelled the diesel smell coming from the rail yard. 6:01am 12 trains idling on William St between Bethel St going south toward Woodward. 3:07pm Western Asphalt odor of gear oil by the north driveway. 8:00pm to 8:07pm CEI was open late smell of acetone mixed with cardboard smell	2:50pm company across from CEI has an stench of mildew. Took pictures of the facility.	3:30 - 3:40 pm smell on Smith St, Olge St gear oil or petroleum smell was strong felt nausea, felt the odor in my lungs and got headache. 3:45pm Between CEI and other businesses in the area strong odor moldy a stench smell of poop coming from between the companies.		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 23, 2012	September 24, 2012	September 25, 2012	September 26, 2012	September 27, 2012	September 28, 2012	September 29, 2012
		3:05 -3:10pm Abilene ST and William St. odor of tar smell(petroleum?)	On site truck on Hoinstein property pumping 3:04pm - 3:10pm smell of petroleum. Southwest Bingo 2112 Second St. 3:26-3:30pm gear oil smell 3:34pm William St and Olge ST could smell the odor on the side of the neighborhood.	7:32am slight smell at Hoinstein corner of Anderson & Commercial petroleum smell. Saw an employee near the water gutter. Don't know what he was doing there. 7:42am Western Asphalt 5 trucks on the property 2 in the facility 3 on the road. light smell of gear oil. Took pictures.		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 30, 2012						

**October 2012**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	October 1, 2012	October 2, 2012	October 3, 2012	October 4, 2012	October 5, 2012	October 6, 2012
		5:45am idling engine trains William St near Bethel St smell of diesel	3:00 pm End of William St and Smith St – Smell of gear oil		Gear odor around Anderson St between Hinkle & Galena St 5:40am	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
October 7, 2012	October 8, 2012	October 9, 2012	October 10, 2012	October 11, 2012	October 12, 2012	October 13, 2012
Smell of gear oil Dead end of Smith St 2:50pm		6:00am and 7:15 am trains idling along William St near Bethel ST. Quick rite Steam coming from the facility took pictures. 7:25 am petroleum smell corner of Anderson & Thaxton & William St 7:45 pm Sulfur smell around my house.		Steve smelled at 6:30am a petroleum odor around William St & Thaxton St		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
October 14, 2012	October 15, 2012	October 16, 2012	October 17, 2012	October 18, 2012	October 19, 2012	October 20, 2012
	2:57pm -3:05pm CEI around the area smell of burning plastic. 3:08 pm Western asphalt smell of gear oil or petroleum smell coming from the facility	5:45 am 6 engine trains idling William St between Bethel	Quick rite air venting 5:45 am no odor coming from the facility one of their towers is venting steam very noticeable.	Steve smelled petroleum odor around our home 2419 William SE He dose not know where the smell is coming from. 6:00am		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
October 21, 2012	October 22, 2012	October 23, 2012	October 24, 2012	October 25, 2012	October 26, 2012	October 27, 2012
	Corner of Thaxton & William Steve smelled a strong odor of gear oil/petroleum 6:30am Esther 3:10-3:15pm Western asphalt smell of gear oil - petroleum smell.	5:45 am 10 trains idling along William/Bethel St. Diesel smell in the area		10:45 -10:50am Hoinstein smell of gear oil or petroleum smell	11:00 am Western Asphalt gear oil smell	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
October 28, 2012	October 29, 2012	October 30, 2012	October 31, 2012			
8:45am 2419 William SE Smell of sulfur 8:50 -8:55 am San Jose Church smell of Sulfur 3:30pm engine trains idling behind Health Clinic. We could smell the diesel odors from the Bridge overpass	5:45am 305 Wheeler SE smell of sulfur in the area - Steve starting smelling a petroleum odor from Thaxton St and William -- odor traveled north toward Anderson St and William St 7:30 am	5:45am trains idling on William north of San Jose St.	5:45 am Smells like burning plastic ? 305 Wheeler SE Don't know where the smell is coming from			

**November 2012**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				November 1, 2012	November 2, 2012	November 3, 2012
					Gear oil smell around Conservancy Oil 2220 Second St. Not sure why smell is coming from this area.	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
November 4, 2012	November 5, 2012	November 6, 2012	November 7, 2012	November 8, 2012	November 9, 2012	November 10, 2012
	3:48-3:53pm front of Western Asphalt smell of gear oil. 3:55-4:00pm Near CEI/JTC Woodward St Stench like burning plastic, paint an unusually odor. Felt my nose burning. 4:03 pm Smith St dead-end smell of gear oil. 4:07 - 4:12pm Dust flying at Quick Rite. Tractor moving dirt in to machine. Wind blowing from the south to the north.	5:45 am appx. Ten engine trains idling on William St. north of San Jose St. There was a fuel tanker truck parked next to train. Near seen this before. Took picture Could smell diesel fumes at my mother's house 305 Wheeler felt smoked out. 5:22pm corner of William & Thaxton Steve smelled exhaust from train exhaust very bad. Felt the diesel exhaust in his lungs.		3:05-3:10 pm light smell of gear oil around Ogle St and Abilene St		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
November 11, 2012	November 12, 2012	November 13, 2012	November 14, 2012	November 15, 2012	November 16, 2012	November 17, 2012
	7:56 am front our house smelled a sulfur smell. 7:58am Corner of San Jose & William St smell of sulfur was a little stronger then my house Quick Rite was venting took pictures. 8:04 am to 8:11am Core slab app. 5 men working around a blue steel and fire black smoke coming from the fire took pictures. 8:14sm GE's South Valley treatment plant was venting (air stripping?) first time I noticed this. Wind direction from the east	5:45 am trains idling	4:09 - 4:13 pm Woodward & William Smell of fertilizer & paint. Do not know which business is putting out the odor	Steve smelled at 6:30am a tar odor around William St & Thaxton St		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
November 18, 2012	November 19, 2012	November 20, 2012	November 21, 2012	November 22, 2012	November 23, 2012	November 24, 2012
	Steve smelled at 6:30am a petroleum odor around William St & Thaxton St 4:05- 4:15 pm Quick Rite venting dust flying all over	5:15 am Trains idling wind blowing west 5:45 am trains still idling 4:55- 5:00pm Western Asphalt light gear oil smell	2:50 pm smell of gear oil in the area of William St & Kathryn St			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
November 25, 2012	November 26, 2012	November 27, 2012	November 28, 2012	November 29, 2012	November 30, 2012	
	Second & William 3:55-4:00 pm AAA septic sewage smell. Could smell the sewage smell near William & Woodward ST.	5:45 am trains idling				

**December 2012**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						December 1, 2012
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
December 2, 2012	December 3, 2012	December 4, 2012	December 5, 2012	December 6, 2012	December 7, 2012	December 8, 2012
	Steve smelled at 6:30am a tar odor around William St & Thaxton St	5:45 am trains idling	6:00pm light odors in the evening cannot tell if it woodstoves or petroleum	2:55 - 3:00pm light smell of gear oil smith st		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
December 9, 2012	December 10, 2012	December 11, 2012	December 12, 2012	December 13, 2012	December 14, 2012	December 15, 2012
	3:00 - 3:10pm Quick Rite venting no odor	5:40pm outside of my house smell of gear oil. 7:50pm gear oil smell at Western Asphalt Took Air sample 7:50pm WIND NW	2:50pm- 3:00pm CEI JTC 2:50 - 3:00 pm mildew smell around this area		3:45 - 3:51pm business to the west of JTC mildew smell	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
December 16, 2012	December 17, 2012	December 18, 2012	December 19, 2012	December 20, 2012	December 21, 2012	December 22, 2012
1:30pm light smell of gear oil at the end block of Smith St.	Steve smelled at 6:30am a tar odor around William St & Thaxton St	5:45 am trains idling	2:55 - 3:00pm light smell of gear oil Western asphalt	Steve smelled at 6:30am a tar odor around William St & Thaxton St	Out of Town	Out of Town
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
December 23, 2012	December 24, 2012	December 25, 2012	December 26, 2012	December 27, 2012	December 28, 2012	December 29, 2012
Out of Town	Out of Town	Out of Town	Out of Town	Out of Town	Out of Town	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
December 30, 2012	December 31, 2012					

**January 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		January 1, 2013	January 2, 2013	January 3, 2013	January 4, 2013	January 5, 2013
			5:45 am 305 Wheeler smell of burning plastic not where odor is coming from could it be someone woodstove ?	2:55 -3:00pm Dust at Quick Rite	2:50pm Gear oil smell on William St around Olge and Smith St	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January 6, 2013	January 7, 2013	January 8, 2013	January 9, 2013	January 10, 2013	January 11, 2013	January 12, 2013
	2:55 -3:05pm Dust at Quick Rite 2 trackers took pictures 3:08 pm -3:12pm Western Asphalt strong smell 3:16- 3:21pm smith st smell of gear oil	5:45 am idling trains on William St	3:03 -3:09 sewage smell 150 Woodward St	4:50 pm light smell of gear oil 2nd street 5:30pm in front of my house smell of petroleum		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January 13, 2013	January 14, 2013	January 15, 2013	January 16, 2013	January 17, 2013	January 18, 2013	January 19, 2013
	Steve smelled at 6:30am a tar odor around William St,Thaxton and Anderson St	5:45 am idling trains on William St	3:00 - 3:05 am light smell of gear oil 2nd street to the north of asphalt	5:45 am 305 Wheeler smell of burning plastic	3:00 - 3:05pm smell of mildew Woodward st	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January 20, 2013	January 21, 2013	January 22, 2013	January 23, 2013	January 24, 2013	January 25, 2013	January 26, 2013
10:30 am Mildew smell 150 Woodward SE	3:15 pm Smith St light smell of gear oil coming from asphalt 3:30pm dust at Albuquerque steel products	5:45 am idling trains on William St 7:45 pm 150 Woodward mildew smell	5:45 am 305 Wheeler smell of burning plastic not where odor is coming from could it be someone woodstove ?		150 Woodward SE light smell of mildew	2:25am 2600 William Train idling
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
January 27, 2013	January 28, 2013	January 29, 2013	January 30, 2013	January 31, 2013		
		5:00 am could hear trains idling from my house 5:40pm -5:45 on William St 2600 block 11 trains quued. Six trains idling.	4:34 - 5:30pm around my house smell of sample smells. Coming & going NW at 14 MPH	7:40 pm front of Conservation oil on 2nd St. Smell of gear oil could be smelled through car closed windows. Smell was very strong.		

**February 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					February 1, 2013	February 2, 2013
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
February 3, 2013	February 4, 2013	February 5, 2013	February 6, 2013	February 7, 2013	February 8, 2013	February 9, 2013
	Steve smelled at 6:30am a tar odor around William St & Thaxton	4:30 am could hear trains idling from my house -- 5:40 -5:45am trains idling on 2500 block William St. Soot of trains was visible like a cloud blowing in the sky.	4:30 am could hear trains idling. 5:40-5:45 am Two trains idling around the 2600 block of William SE -- 3:03-3:08 pm corner of William & Smith smell of gear oil. Wind blow from the east toward the west. 7:34 pm front of Honstein big bear light smell of diesel. 7:38pm outside of my house smell of gear oil.	6:14pm train idling near 2600 block of William. 9:04 pm train still idling near 2600 block of William		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
February 10, 2013	February 11, 2013	February 12, 2013	February 13, 2013	February 14, 2013	February 15, 2013	February 16, 2013
3:30 pm 1800 William SE Steve smelled of gear oil while riding his bike. Under the bridge 3:35pm 6 engine trains idling . Wind blowing from the east to the west.	Trains idling 5:45 pm around 2600 block of William ST	4:45 am could hear trains idling from my house. 7:00 am trains idling 2500 block of William St				
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
February 17, 2013	February 18, 2013	February 19, 2013	February 20, 2013	February 21, 2013	February 22, 2013	February 23, 2013
12:07pm 7 trains idling on Commercial St behind First Choice. 12:12 pm fuel tanker truck fueling petroleum into underground storage at Big Bear. Light smell of gasoline. 12:31 pm truck still fueling. Wind 10mph SSW		3:00 pm -9:30pm 2 engine trains idling 2600 block of William SE Wind at WSW 22mph	3:00 pm -9:30pm 2 engine trains idling 2600 block of William SE Wind at WSW 22mph			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
February 24, 2013	February 25, 2013	February 26, 2013	February 27, 2013	February 28, 2013		
	two trains idling 3:00pm - 10pm 2600 block of William Wind: WSW at 6mph	3:00 pm to 10:00pm two trains idling 2600 block of William 7:40pm strong smell of diesel	4 trains idling NNW at 12mph	2 trains idling NNW at 10 mph 2500 bock of William SE		

**March 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					March 1, 2013	March 2, 2013
						Wind: NE at 5mph -- two trains idling 2600 block of William SE -- 2:45pm
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 3, 2013	March 4, 2013	March 5, 2013	March 6, 2013	March 7, 2013	March 8, 2013	March 9, 2013
trains still idling 8:00 am Sunday trains still idling 1:00 pm train still idling 3:45 pm light smell around Hoinstein. Dead end of smith st medium smell of gear oil. SW at 17mph	6:30am Steven smelled tar smell around Thaxton & William St					
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 10, 2013	March 11, 2013	March 12, 2013	March 13, 2013	March 14, 2013	March 15, 2013	March 16, 2013
1:00pm light odor at the side of western asphalt	N at 13mph Smell at the dead end of Smith and Abeline St & william smell coming from Western Asphalt. 3:55-4:00pm trains parked at 2600 block of William St only one train idling	March 12 trains idling 2600 block of william se wind e at 4mph			March 15 5:45 am light smell of geraoil in my property. 3:00 pm four tarins idling at 2600 block William SE wind n at 11 mph	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 17, 2013	March 18, 2013	March 19, 2013	March 20, 2013	March 21, 2013	March 22, 2013	March 23, 2013
Corner of Smith & William St. Gear oil smell wnw at 21 mph						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 24, 2013	March 25, 2013	March 26, 2013	March 27, 2013	March 28, 2013	March 29, 2013	March 30, 2013
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
March 31, 2013						

**April 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 1, 2013	April 2, 2013	April 3, 2013	April 4, 2013	April 5, 2013	April 6, 2013	April 6, 2013
	5:45PM dead end on Smith St. Light odor of gear oil wind SSWat 12mph. Two trains idling at 2600 block William St.	7:40pm light odor of diesel coming from idling trains at 305 Wheeler SE 8:00pm light odor of diesel coming from idling trains 2419 William SE	3:00 pm 2600block of William SE two idling trains wind N@9mph			8:10pm Dead end street of Smith St.light smell of gear oil wind WSW @14mph
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 7, 2013	April 8, 2013	April 9, 2013	April 10, 2013	April 11, 2013	April 12, 2013	April 13, 2013
11:10-11:15am 1800 block of William SE & dead end of smith light smell of gear oil. Wind West @ 6mph 1:15pm smell of gera oil still around 1800block of illiam ST. 3:45pm took air sample Dead end street of Smith SEWind West @9mph	No neighborhood tour winds were to high	Corner of Thaxton & William Smell of gear oil Heavy smell 5:15pm	out of town	out of town	out of town	11:50am dead end Smith St light odor of gear oil smell. 7:13 pm 2 engine trains idling at 2900 bock of William SE. 7:45 pm Smith & Ogle St light smell of gear oil smell. Wind: WSW at 18mph - 7:20pm-7:35pm took pictures on the side Albuq. Metals smell of oil, gas. 8:00 pm mouth has a feeling of metical.
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 14, 2013	April 15, 2013	April 16, 2013	April 17, 2013	April 18, 2013	April 19, 2013	April 20, 2013
10:30pm Smith & Olge St. Smell of gear oil. Wind @ W26pmh	5:45 am dust flying though out William & San Jose Dust coming from Quick Rite Wind ESE 10mph Steve smell gear oil smell around our property 7:30 am	high winds 7:40pm two trains idling 2900 block of william se winds ssw @25mph			light smell smith st picture vending for weatern asphalt 4:00pm	light smell smith st still vending for weatern asphalt 4:45pm
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 21, 2013	April 22, 2013	April 23, 2013	April 24, 2013	April 25, 2013	April 26, 2013	April 27, 2013
light smell smith st still vending for weatern asphalt 10:30 am & 5:20pm	4:00pm Smith & Ogle st medium smell coming from Wesern Asphalt 6:26 pm still smelling in this area. Wind SSW@22		Light odor on Smith ST 6:00pm 6:15 pm two trains idling in front of Solis house.	6:25 pm two trains idling near William next to vaccant lot on William & Wheeler SE 9:40pm trains still idling wind NNW @13 MPH		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
April 28, 2013	April 29, 2013	April 30, 2013				
8:50am 2600 william se two trains idling 3:30pm Smith St light smell of gera oil from western Asphalt sse@4mph		7:03am light smell gear oil smell 2400 william SE wind SSE@6mph - two trains idling 2600 block of william 5:50 - 8:00pm W@16mph				

May 2013						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			May 1, 2013	May 2, 2013	May 3, 2013	May 4, 2013
				wind S@3mph	two trains idling William St & Bethel 6:00pm Wind: SW @6mph	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
May 5, 2013	May 6, 2013	May 7, 2013	May 8, 2013	May 9, 2013	May 10, 2013	May 11, 2013
	7:55 pm corner of Anderson & William light smell of gear oil W@8mph 8:05 pm three trains idling on 2600 block of William.	trains idling by the Solis house block of William Se Smells of gear oil around the house on anderson St	trains idling 2600 block of William Se Smells of gear oil around the house on anderson St	Smell of gear oil around William & smith 9:30pm		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
May 12, 2013	May 13, 2013	May 14, 2013	May 15, 2013	May 16, 2013	May 17, 2013	May 18, 2013
2nd st by Pennzoil pass western asphalt medium smell of gear oil wind east @6mph time 8:30pm	2 trains idling 2900 block of William 8:00pm 8:10pm dead end of smith light smell of gear oil. Wind @ 5 at 7mph	Two trains idling on 2600 block of William 4:00pm		2 trains idling 2900 block of William 5:00pm		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
May 19, 2013	May 20, 2013	May 21, 2013	May 22, 2013	May 23, 2013	May 24, 2013	May 25, 2013
	two trains idling 5:45am William & San Jose St - 6:00pm 2 trains idling behind my house		7:00pm Wind at SSE 9mph - two trains idling in front of the Solis's house Light odor of gear oil smith st 6:30pm	9:40pm William & Smith ST Meduin Smell of gear oil Wind S@6mph 9:50pm two trains idling in front of peper's house	3:30 - 7:00 pm Wind S@16mph two tains idling in front of Solis house	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
May 26, 2013	May 27, 2013	May 28, 2013	May 29, 2013	May 30, 2013	May 31, 2013	
Light smell of gear oil Smith St. 12:30pm	Thaxton & William Strong Smell of gear oil 5:40pm	Thaxton & William Medium Smell of gear oil 6:40am	40 mph winds 3:30pm front of Solis house two trains idling	4:00pm front of Solis house two trains idling Wind @ W@17mph		

**June 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						<b>June 1, 2013</b>
						8:02 pm 1700 William St Smell of gear oil Wind E@12mph
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>June 2, 2013</b>	<b>June 3, 2013</b>	<b>June 4, 2013</b>	<b>June 5, 2013</b>	<b>June 6, 2013</b>	<b>June 7, 2013</b>	<b>June 8, 2013</b>
	8:05 pm corner of Anderson & William Light smell of gear oil Wind WNW @ 18mph	5:25 am on my property area strong smell of gear oil wind @ SSE@6mph 2 trains idling in front of the Solis's house 3:10pm Wind SSW@9mph		3:05 two trains idling in front of the Solis's house. 4:15 pm Smith St light smell of gear oil. Wind W@10mph		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>June 9, 2013</b>	<b>June 10, 2013</b>	<b>June 11, 2013</b>	<b>June 12, 2013</b>	<b>June 13, 2013</b>	<b>June 14, 2013</b>	<b>June 15, 2013</b>
	5:45pm Woodward & William smell of acetone? Wind @ SSE @ 9mph	3:00pm Woodward St smell of paint, moldy smell. Two trains idling @ 2912 William SE - 6:15pm Wind: W@14mph Two trains still idling at 2912 William St. 6:35 pm William St around Herman Sanchez Community center area gear oil smell		9:15pm two trains idling in front of Peper's house. 9:20 William St by Smith and community center smells like a wet dog. Coming from rain and light gear oil smell. Wind W@16 mph		7:15am Two trains idling in front of Joe's house 5:30pm trains still idling Near Joe Green's house.
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>June 16, 2013</b>	<b>June 17, 2013</b>	<b>June 18, 2013</b>	<b>June 19, 2013</b>	<b>June 20, 2013</b>	<b>June 21, 2013</b>	<b>June 22, 2013</b>
7:25pm William & Smith St Light smell of gear oil Wind Sw@7mph. 2400 block of William smell of wood burning coming from forest fire?	6:00pm two trains idling by Joe Green's House	6:00pm two trains idling by Solis House Wind SSE@7mph	11:40am 2 trains idling in front of the Solis house. 11:45 front of CEI light smell of acetone, thinner? Wind S@10 mph	6:55 am light smell of gear oil 2419 William St Wind NW@3mph 9:45pm smell of sulfur 2419 William SE Wind SSW@10mph	7:00 pm two trains idling 2600 William 10:00pm trains still idling Wind W@6mph	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>June 23, 2013</b>	<b>June 24, 2013</b>	<b>June 25, 2013</b>	<b>June 26, 2013</b>	<b>June 27, 2013</b>	<b>June 28, 2013</b>	<b>June 29, 2013</b>
	5:30am light gear oil scent around my house Wind SW@3mph 5:45am 305 Wheeler St light smell of gear oil. 7:30pm 1800 block of William light smell of gear oil. Wind - W@8mph	2:05 am smell of raw sewage coming from AC. Went outside of my house. Wind: NW@8mph	8:00pm front of the Solis's house two trains idling 1900block of William /between Thaxton & Anderson light smell of gear oil Wind S@6mph	5:42 sulfur smell in front of my house. 5:45 305 Wheeler sulfur smell a light more stronger. 3:15 pm two trains idling 2600 block of William SE 9:35pm trains still idling		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>June 30, 2013</b>						

**July 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	July 1, 2013	July 2, 2013	July 3, 2013	July 4, 2013	July 5, 2013	July 6, 2013
		8:00pm two trains idling 2600 William Wind @s16mph		7:40am light smell of gear oil William & Smith Wind Calm	3:00 pm two trains idling front of Solis	6:30pm Woodward & William SE area smell of moldy coming from the company that has sand dust on property.
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 7, 2013	July 8, 2013	July 9, 2013	July 10, 2013	July 11, 2013	July 12, 2013	July 13, 2013
10:30 light smell of gear oil. Katheryn & William Area	Steven Smelled Tar smell around Thaxton & William 6:30am	Steven Smelled Tar smell around Thaxton & William 6:30am		9:25pm light smell of gear oil around Herman San chez community center Wind:SSW@12		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 14, 2013	July 15, 2013	July 16, 2013	July 17, 2013	July 18, 2013	July 19, 2013	July 20, 2013
	Steven smelled Tar smell around Thaxton & William 6:30am	3:15pm william St light smell of gear oil Smith St	9:27pm william St light smell of gear oil around smith to by where merlinda lives. Wind:ESE@14mph			
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 21, 2013	July 22, 2013	July 23, 2013	July 24, 2013	July 25, 2013	July 26, 2013	July 27, 2013
	3:30pm two trains idling Joe's house		3:30pm two trains idling Joe's house Wind SE @21mph	5:25am trains still idling in front of Joe's Green's house	Air Sample taken 2419 William SE	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
July 28, 2013	July 29, 2013	July 30, 2013	July 31, 2013			
		Steven smelled Tar smell around Thaxton, Anderson & William St 6:30am				

**August 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				August 1, 2013	August 2, 2013	August 3, 2013
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
August 4, 2013	August 5, 2013	August 6, 2013	August 7, 2013	August 8, 2013	August 9, 2013	August 10, 2013
11:15am Gear oil smell Kathryn & William St	Trains idling in front of Joe Green's house 4:00pm	Trains still idling in front of Joe Green's house 5:25am Steven smelled tar smell around Anderson & William St 6:30am				
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
August 11, 2013	August 12, 2013	August 13, 2013	August 14, 2013	August 15, 2013	August 16, 2013	August 17, 2013
	Steven smelled tar smell corner of Thaxton & William St 6:30am			Gear oil smell dead end of Smith St 7:38pm		
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
August 18, 2013	August 19, 2013	August 20, 2013	August 21, 2013	August 22, 2013	August 23, 2013	August 24, 2013
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
August 25, 2013	August 26, 2013	August 27, 2013	August 28, 2013	August 29, 2013	August 30, 2013	August 31, 2013

**September 2013**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 1, 2013	September 2, 2013	September 3, 2013	September 4, 2013	September 5, 2013	September 6, 2013	September 7, 2013
		Trains idling 2600 block of William ST				
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 8, 2013	September 9, 2013	September 10, 2013	September 11, 2013	September 12, 2013	September 13, 2013	September 14, 2013
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 15, 2013	September 16, 2013	September 17, 2013	September 18, 2013	September 19, 2013	September 20, 2013	September 21, 2013
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 22, 2013	September 23, 2013	September 24, 2013	September 25, 2013	September 26, 2013	September 27, 2013	September 28, 2013
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
September 29, 2013	September 30, 2013					





Richard J Berry, Mayor

City of Albuquerque
Environmental Health Department
Air Quality Division
Partial Compliance Evaluation (PCE)



Marv Lou Leonard, Director

Date(s) of Inspection(s): April 30, 2012

NAICS/SIC No.: 447110/5541

Time:

Permit No.: None
Permit Issue Date: None
CDS No.: None

Source Class: Minor NSR
Source Category: Gas Service/Fleet Stations

Inspection Type: [ ] Scheduled [x] Unscheduled [ ] Self Initiated [x] Follow-up [x] Complaint

Operating Status: [x] Active [ ] Seasonal/Temporary [ ] Closed [ ] Sold [ ] Leased

Company Name: Honstein Oil dba Big Bear Petroleum Contact/Title: Freddie Chavez, General Manager Phone No.: 505-345-9029

Facility Name: Big Bear Petroleum E-mail address: freddie@honsteinoil.com Cell No. 505-250-3918

Facility Address: 101 Anderson SE, Albuquerque, NM 87102 Billing Address: Fax No. 505-344-0714

New Company Name: N/A New Contact/Title: N/A New Phone No.: N/A

New Billing Address: N/A Date of new ownership: N/A

Reason for change of Ownership: N/A

Handwritten signature

Findings:

On April 26, 2012, I received an e-mailed from Mr. Damon Reyes, AQD Enforcement Supervisor. Mr. Reyes' e-mail, stated the following: "David, could you please follow up on the complaint I got from Olivia Price (San Jose NA) regarding this facility at 101 Anderson SE? Please call her back with your findings (315-8224). She is complaining that the facility is making people in her neighborhood sick. I let her know that we do not have the authority or expertise to address health issues and that they may or may not be being caused by the source she is pointing to. I let her know that what we could do, that may assist the neighborhood, is to visit the site to see if they have a permit and if so if they are in compliance with it. Let me know your findings once you have performed your inspection."

On April 30, 2012, I conducted an unscheduled inspection of Honstein oil dba Big Bear Petroleum facility. I met with Mr. Fred Chavez, Big Bear General Manager and informed him of the purpose of my site visit. I asked him if he had an Air Quality permit and he stated no. Mr. Chavez stated that Big Bear Petroleum is a distribution warehouse (See photos). I requested a tour of the facility, and during the tour I took photos.

There were several above ground storage tanks that were not in use. I suggested to Mr. Chavez that he should label each of them as "Not in Use". Also, there were several 55 gallon barrels (west side) filled with what appeared to be soil and debris (See photos).

There were two above-ground 250-gallon tanks (empty) on the Southside. Mr. Chavez stated that Big Bear leases these tanks to construction companies and Big Bear would go onsite and refill these tanks with fuel (gasoline). According to Mr. Chavez, they use a Bobcat delivery truck to perform this task (See photo).

On the eastside of the facility, there were two above ground storage tanks for Diesel fuel (red dye and ultra low sulfur). During the inspection, I observed underground storage tank covers ((two blue-Plus unleaded), (one white-Regular unleaded), and two red-Super unleaded)) near the Big Bear office (northeast) and an unloading rack with two loading arms. Mr. Chavez stated that the unloading rack was equipped with a vapor recovery system. At the time of the inspection, I did not observe any unloading of fuel into Big Bear's Bobcat delivery truck. I asked Mr. Chavez what was the tank capacity for each tank, and Mr. Chavez stated that the two diesel tanks were 10,000 gallons and unleaded tank was 6,000 gallons.

Mr. Chavez did not state what fuel was stored in the tanks with blue covers. According to the State of New Mexico Petroleum Storage Tank Bureau's Active Storage Tank Report, it reports the following tank status for Big Bear [ EVER READY OIL BULK FACILITY ]: [link http://www.nmenv.state.nm.us/ust/lists.html]

Table with 12 columns: In Use (AST, UST), Temp Out (AST, UST), Sold (AST, UST), Removed (AST, UST), No Data (AST, UST), Exempt (AST, UST). Values: 19 AST, 5 UST, 0 Temp Out, 0 Sold, 9 Removed, 2 No Data, 0 Exempt.

X:\ENV\ORD\2012 Inspections\Honstein Oil Big Bear Petroleum\PIN and PCE\ PCE Final 12-12-12

Attachment 18

Based on the State of New Mexico Petroleum Storage Tank Bureau's Active Storage Tank Report, it appears that there are 5 (five) underground storage tanks and 19 (nineteen) above storage tanks.

On May 9, 2012, I sent an e-mail to Mr. Isreal Tavaréz, AQD Permitting section Manager, to inform him that a Post Inspection Notification (PIN) will be issued by PDF (e-mail) to Big Bear to submit a permit application to AQD. The non-compliance issue stated in the PIN was for the following regulation:

**20.11.40 NMAC**

*any person owning or operating any commercial or industrial stationary source, which emits more than two thousand pounds of any air contaminant per year or any amount of a hazardous air pollutant, must obtain a Registration Certificate for the source from the Director. Any person owning or operating any commercial or industrial stationary source constructed after September 1, 1973, and meeting the emission requirements of this section, must obtain a Registration Certificate for the source from the Director within one hundred and eighty days after the initial startup date of the source.*

This PIN was issued via e-mail on May 11, 2012 with corrective action date of June 11, 2012 to submit a permit application to AQD. I used Mr. Chavez's e-mail address from his Honstein Oil's business card that was provided to me by Mr. Chavez on April 30, 2012. The corrective action and due date were not met by Big Bear. I did not receive a read receipt from Microsoft Outlook that Mr. Chavez read my e-mail with the PIN attached, but I did receive a delivery receipt showing Mr. Chavez did receive it. As a result of an unsuccessful response from Mr. Chavez, a second PIN was hand delivered to Mr. Chavez by Mr. Sims, AQD Inspector, and me on August 01, 2012. The corrective action was the same as the first PIN with a due date of September 01, 2012.

According to Mr. Tavaréz's e-mail dated October 08, 2012 to Mr. Chavez, it appears Mr. Chavez contacted Mr. Tavaréz via telephone on October 8, 2012.

Mr. Tavaréz stated the following in his e-mail to Mr. Chavez:

*"As we discussed during our telephone conversation, an air quality permit is required for your operations since you dispense gasoline. I have provided the air quality permit application form and a fee checklist. I am providing both the web link to each of these files and I have also provided the documents as attachments."*

As of the date of this report, AQD has not received a permit application from Big Bear.

Post Inspection Notifications (PIN) were issued on May 11, 2012 (e-mailed) and August 01, 2012 (hand delivered) for the potential non-compliance issue found during my inspection on April 30, 2012. On both PIN's, the corrective action dates were not met by Big Bear.

Since Mr. Tavaréz had made a determination and I confirmed that this facility requires an Authority To Construct (ATC) permit and the facility has failed to apply for one, a third PIN was issued on November 30, 2012 via e-mail to Mr. Rod Honstein, Big Bear's President for failure to obtain an ATC permit from the Division. The PIN's corrective action stated the following:

*Big Bear Petroleum shall submit a permit application for Part 41, or proof that Part 41 is not applicable and therefore No Permit is Required (NPR). Submittal of the permit application or proof of NPR to the City of Albuquerque, Air Quality Division, Air Permitting Section shall be submitted by December 08, 2012.*

The corrective action has not been received as of December 12, 2012 and therefore did not meet the Division's corrective action due date of December 08, 2012.

It was determined by me that Big Bear does not have an Air Quality permit according to the AQD database and should have submitted a permit application to the Division since the facility is dispensing gasoline. Based on 40 CFR 63 Subpart CCCCCC, Big Bear is subject to this federal regulation.

I received an e-mail on December 03, 2012 from Mr. Honstein with the signed PIN as a attachment. Mr. Honstein stated in his mail that "...We will begin the corrective action as required in the PIN".

In addition, I was copied on an e-mail dated December 03, 2012 from Mr. Tavaréz to Mr. Chavez. Mr. Tavaréz e-mail stated the following: "Freddie,

*Thanks for taking the time to talk with me about your air quality permit application. As we discussed, the reason an air quality permit is needed is because there are current federal requirements which apply to gasoline dispensing facilities. The federal regulation is 40 CFR Part 63, Subpart CCCCCC - National Emission Standards for Hazardous air Pollutants for Source Category: Gasoline Dispensing Facilities. A brochure which explains the requirements can be found at: <http://www.epa.gov/ttn/atw/area/gdfr.pdf>*

*The federal regulation can be found at: <http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=ebfca6e3ef30cd105675d6b593a780c3&rgn=div6&view=text&node=40:16.0.1.1.1.16&idno=40>*

*The current annual fee is \$315, but the annual fee is adjusted for the Consumer Price Index every January 1. Therefore, the invoice for the first annual fee will be for an amount greater than \$315 and the first invoice will be sent in August of 2013.*

*Please feel free to contact me if you have any questions or if you need additional information."*

I issued another PIN on December 13, 2012 to Mr. Honstein for non-compliance with 20.11.41.2(B)(2) NMAC and the corrective action was to submit a permit application for Part 41.

I recommend that a Notice Of Violation be issued to Big Bear for the non-compliance issue found during my inspection on April 30, 2012. Honstein Oil dba Big Bear Petroleum was in non-compliance with the following regulations:  
20.11.41.2(B)(2) NMAC

Attachments:

Post Inspection Notifications (PIN)

Photos

Mr. Tavaraz's e-mails

Mr. Honstien's e-mail

Honstein Oil internet documents

State of New Mexico Petroleum Storage Tank Bureau's Active Storage Tank report.

Inspector Name: David Duran

Inspector Signature: 

Date: 12/10/2012





# Science for Citizens

January 24, 2014

Juan Reynosa  
Southwest Organizing Project  
211 10th Street SW  
Albuquerque, NM 87102

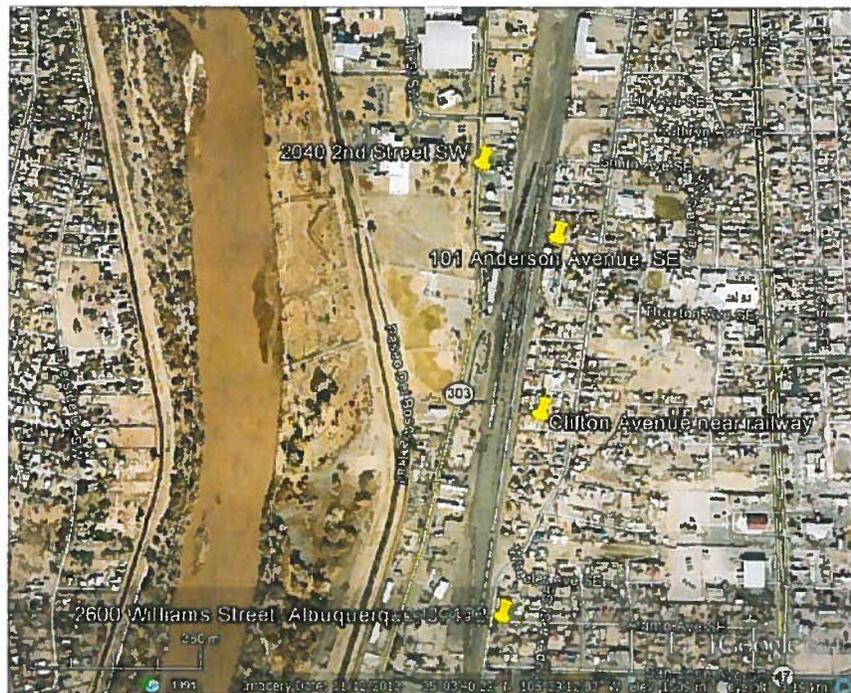
RE: Ambient Air Quality in Southwest Albuquerque, San Jose Bucket Brigade Results

Dear Mr. Reynosa

Please find below a report that discusses ambient air quality in southwest Albuquerque as characterized by the efforts of trained community volunteers who participated in the San Jose Bucket Brigade. Please also refer to the attached spreadsheet – [New Mexico San Jose Bucket Brigade Albuquerque \(24 Jan 2014\).xls](#) – that summarizes the air quality data that was collected.

## LOCATION

Trained community volunteers who participated in the San Jose Bucket Brigade collected air samples from a mixed residential-industrial area along a railway corridor in southwest Albuquerque. Below is a Google Earth image depicting representative locations of where samples were collected.



## METHODS

For analysis of VOC levels, grab samples of air were collected by trained community volunteers by pumping air into a Tedlar® bag which was then shipped to Columbia Analytical Services for measurement of VOC concentrations by EPA Method TO-15 - Determination Of Volatile Organic Compounds (VOCs) By Gas Chromatography/Mass Spectrometry (GC/MS).

For analysis of very fine particulate matter (PM<sub>2.5</sub>), organic carbon (OC) and elemental carbon (EC) levels, filtered air samples were collected by trained community volunteers using an Airmetrics MiniVol portable air sampler equipped with 47-mm Teflon filters. Samples were collected over 24-hour periods at a constant flow rate (typically 4.5 liters per minute). A PM<sub>2.5</sub> impactor was used, enabling collection of particulate matter with aerodynamic sizes of less than 2.5 microns. Filters were shipped to ChesterLabNet in Tigard, Oregon, for analysis. Particulate matter levels were determined gravimetrically. OC and EC levels were determined by flame ionization detection.

Field data, including start and end time of sampling, temperature, meteorological conditions and notable circumstances, was recorded contemporaneously by trained community volunteers.

## RESULTS – VOC LEVELS

Seven (7) grab samples of air were collected by trained community volunteers over a period of approximately one year. The first air sample was collected on September 13<sup>th</sup>, 2012, and the last air sample was collected on September 18<sup>th</sup>, 2013.

### Chlorobenzene

Air samples collected from in southwest Albuquerque were remarkable in that each sample contained detectable and significantly elevated levels of chlorobenzene. The average concentration found in all seven samples is 23.6 µg/m<sup>3</sup>, ranging from a low of 8.5 µg/m<sup>3</sup> to a high of 50 µg/m<sup>3</sup>.

These levels are roughly 10 time higher than concentrations of chlorobenzene commonly found in urban ambient air. According to the U.S. Agency for Toxic Substances and Disease Registry:

“Air samples at 56 localities in the United States in 1982 had mean chlorobenzene concentrations of about [3.0 µg/m<sup>3</sup>] the highest concentrations in urban and suburban areas, at much lower levels at the sites of production, but was not detectable in rural and remote areas (Brodzinsky and Singh 1983). This suggests a substantial contribution to urban air levels by small industry and consumer products but also a short residence time in the air. A study of New Jersey waste sites found similar air levels of chlorobenzene [2.5 µg/m<sup>3</sup>] (Harkov et al. 1985).”<sup>1</sup>

These consistently elevated levels of chlorobenzene in southwest Albuquerque may also be of significance to public health in that levels are averaging higher than the U.S. Environmental

<sup>1</sup> <http://www.atsdr.cdc.gov/toxprofiles/tp131-c5.pdf>

Protection Agency's (U.S. EPA) provisional Reference Concentration (RfC) for chlorobenzene. According to the U.S. EPA:

“EPA has calculated a provisional Reference Concentration (RfC) of 0.02 milligrams per cubic meter (mg/m<sup>3</sup>) [equivalent to 20 µg/m<sup>3</sup>] for chlorobenzene based on kidney and liver effects in rats. The RfC is an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups), that is likely to be without appreciable risk of deleterious noncancer effects during a lifetime. It is not a direct estimator of risk but rather a reference point to gauge the potential effects. At exposures increasingly greater than the RfC, the potential for adverse health effects increases. Lifetime exposure above the RfC does not imply that an adverse health effect would necessarily occur. The provisional RfC is a value that has had some form of Agency review, but it does not appear on IRIS. (6)”<sup>2</sup>

What is the source of chlorobenzene in southwest Albuquerque is, therefore, an important question, but for which there is not yet a clear answer, only reasonable possibilities. All of the samples were collected near a railway corridor, and several of the samples were collected in close proximity to an asphalt storage terminal operated by Western Refining facility on 2040 2nd Street. Rail car service facilities commonly use chlorobenzene as degreasing solvent.<sup>3</sup> Chlorobenzene is used as a solvent in the production of bitumen and asphalt coatings and, according to the U.S. EPA, asphalt paving mixtures and blocks are potential sources of chlorobenzene.<sup>4</sup>

### Toluene

Air samples collected from in southwest Albuquerque were also remarkable in that each sample contained detectable levels of toluene. The average concentration of toluene found in all seven samples is 10.9 µg/m<sup>3</sup>, ranging from a low of 8.9 µg/m<sup>3</sup> to a high of 15 µg/m<sup>3</sup>. However, these levels of toluene are not higher than concentrations of toluene commonly found in urban ambient air. According to the U.S. Agency for Toxic Substances and Disease Registry:

“Background levels of toluene in remote areas were found to be quite low (0.05 ppb), but levels of 0.27–7.98 ppb were observed in suburban and urban areas. Other studies have reported toluene concentrations of 0.9–70.1 ppb, 0.06–195 ppb, and 2.2–751.5 ppb in rural (Khalil and Rasmussen 1992), urban (Chan et al. 1991b; EPA 1991c; Evans et al. 1992; Kelly et al. 1993), and source dominated air samples (Guldberg 1992; Kelly et al. 1993). There are multiple sources of this atmospheric toluene, with vehicle emissions being a major contributor (Altshuller et al. 1971; EPA 1981; Garcia et al. 1992).”<sup>5</sup>

<sup>2</sup> <http://www.epa.gov/ttnatw01/hlthef/chlorobe.html>

<sup>3</sup> See, for example: GE Railcar (Elkton, Maryland).

<http://www.epa.gov/reg3wcmd/ca/md/webpages/mdd078288354.html>

<sup>4</sup> U.S. EPA (1993) "Locating And Estimating Air Emissions From Sources Of Chlorobenzenes."

<sup>5</sup> <http://www.atsdr.cdc.gov/ToxProfiles/tp56-c5.pdf>

However, these toluene levels in southwest Albuquerque are not of significance to public health, being well below short-term and long-term health-based standards for exposure of the general public to toluene in ambient air.

### Other VOCs

Moderate amounts of ethanol (4 samples), acetone (2 samples), styrene (1 sample) and d-limonene (1 sample) were detected in air samples from southwest Albuquerque, but well below short-term and long-term health-based standards for exposure to these VOCs.

## RESULTS – PARTICULATE MATTER AND ELEMENTAL CARBON LEVELS

### Particulate Matter levels

There is a robust association between health effects and ambient levels of particulate matter. Very small (fine) particles exert disproportionately more health effects than do larger particles. According to the U.S. EPA:

“Particles less than 10 micrometers in diameter (PM<sub>10</sub>) pose a health concern because they can be inhaled into and accumulate in the respiratory system. Particles less than 2.5 micrometers in diameter (PM<sub>2.5</sub>) are referred to as "fine" particles and are believed to pose the largest health risks. Because of their small size (less than one-seventh the average width of a human hair), fine particles can lodge deeply into the lungs.

“Health studies have shown a significant association between exposure to fine particles and premature mortality. Other important effects include aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems such as heart attacks and cardiac arrhythmia. Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease, and children.”<sup>6</sup>

The U.S. EPA and the World Health Organization (WHO) have both adopted health-based air quality standards for exposure to PM<sub>2.5</sub>, and these standards are indicated in Rows 22-25 of the attached spreadsheet.

Seven filtered air samples from southwest Albuquerque were analyzed for PM<sub>2.5</sub> levels. Most of the PM<sub>2.5</sub> levels in filtered air samples collected in southwest Albuquerque were relatively low. However, a PM<sub>2.5</sub> level of 75.7 µg/m<sup>3</sup> was measured at Williams & Broadway on 13 August 2013, more than twice the U.S. EPA 24-hour standard for PM<sub>2.5</sub> of 35 µg/m<sup>3</sup>. Primarily because of this sample, the long-term average PM<sub>2.5</sub> level (six samples over a period of six months) now stands at 18.9 µg/m<sup>3</sup>, above the U.S. EPA annual standard for PM<sub>2.5</sub> of 12 µg/m<sup>3</sup>.

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<sup>6</sup> [http://www.epa.gov/ttn/naaqs/pm/pm25\\_index.html](http://www.epa.gov/ttn/naaqs/pm/pm25_index.html)

### Elemental Carbon levels

Vehicle exhaust, primarily diesel exhaust, is the predominant source of EC in ambient air.

- When EC levels are above 1 microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ), then one can conclude that this location is an area impacted by diesel engine emissions.<sup>7</sup>
- When 24-hour EC levels at a location are above  $1.36 \mu\text{g}/\text{m}^3$ , then they are high enough to be associated with an excess risk of cardiovascular mortality two and three-days post exposure.<sup>8</sup>
- When 24-hour EC levels at a location are above  $0.838 \mu\text{g}/\text{m}^3$ , then they are high enough to be associated with an excess risk of cardiovascular and respiratory hospitalizations on the day of exposure.<sup>9</sup>

Nine filtered air samples from southwest Albuquerque were analyzed for EC levels.

EC levels in samples collected at the 2500-2600 block of Williams Street were consistently high, indicating impacts from heavy vehicle (diesel engine) emissions. EC levels exceeded  $0.838 \mu\text{g}/\text{m}^3$  in three of four samples from this location, high enough to be associated with an excess risk of cardiovascular and respiratory hospitalizations on the day of exposure. A EC level of  $1.76 \mu\text{g}/\text{m}^3$  was measured at Williams & Broadway on 23 August 2013, substantially higher than levels associated with an excess risk of cardiovascular mortality two and three-days post exposure.

For several samples with low EC levels were low (April 22-23 and May 5-6) windy conditions prevailed.<sup>10</sup> On April 22nd, wind speeds averaged 12 mph with gusts of up to 37 mph, with winds out of the SW; on April 23rd, wind speeds averaged 13 mph with gusts of up to 44 mph, with winds out of the N. On May 5th, wind speeds averaged 19 mph with gusts of up to 47 mph,

<sup>7</sup> Even in urban areas, levels of EC in air samples almost never exceed  $1 \mu\text{g}/\text{m}^3$  unless the sample is within a few hundred feet of road traffic. See: <http://www.mnp.nl/bibliotheek/rapporten/500099011.pdf>

<sup>8</sup> Ostro, et al. (2008) "The impact of components of fine particulate matter on cardiovascular mortality in susceptible subpopulations," *Occup. Environ. Med.*, 65:750-756.

<sup>9</sup> Bell, et al. (2009) "Hospital Admissions and Chemical Composition of Fine Particle Air Pollution," *Am J Respir Crit Care Med*, 179:1115-1120.

<sup>10</sup> [http://www.wunderground.com/history/airport/KABO/2013/4/22/DailyHistory.html?req\\_city=NA&req\\_state=NA&req\\_statename=NA](http://www.wunderground.com/history/airport/KABO/2013/4/22/DailyHistory.html?req_city=NA&req_state=NA&req_statename=NA)

[http://www.wunderground.com/history/airport/KABO/2013/4/23/DailyHistory.html?req\\_city=NA&req\\_state=NA&req\\_statename=NA](http://www.wunderground.com/history/airport/KABO/2013/4/23/DailyHistory.html?req_city=NA&req_state=NA&req_statename=NA)

[http://www.wunderground.com/history/airport/KABO/2013/5/5/DailyHistory.html?req\\_city=NA&req\\_state=NA&req\\_statename=NA](http://www.wunderground.com/history/airport/KABO/2013/5/5/DailyHistory.html?req_city=NA&req_state=NA&req_statename=NA)

[http://www.wunderground.com/history/airport/KABO/2013/5/6/DailyHistory.html?req\\_city=NA&req\\_state=NA&req\\_statename=NA](http://www.wunderground.com/history/airport/KABO/2013/5/6/DailyHistory.html?req_city=NA&req_state=NA&req_statename=NA)

[http://www.wunderground.com/history/airport/KABO/2013/1/26/DailyHistory.html?req\\_city=NA&req\\_state=NA&req\\_statename=NA](http://www.wunderground.com/history/airport/KABO/2013/1/26/DailyHistory.html?req_city=NA&req_state=NA&req_statename=NA)

[http://www.wunderground.com/history/airport/KABO/2013/1/27/DailyHistory.html?req\\_city=NA&req\\_state=NA&req\\_statename=NA](http://www.wunderground.com/history/airport/KABO/2013/1/27/DailyHistory.html?req_city=NA&req_state=NA&req_statename=NA)

with winds out of the ESE; On May 6th, wind speeds averaged 12 mph with gusts of up to 31 mph, with winds out of the SSW. On the one day when EC levels were quite high (Jan 26-27th), winds were quite lower, averaging only 7-8 mph. On windy days, ambient air levels of pollutants from a point source are lower simply because there is more total air passing over a location for pollutants to disperse into.

I would conclude, therefore, that the sampling location – a mixed residential-industrial area along a railway corridor in southwest Albuquerque – is adversely impacted by diesel emissions, impacts which are mitigated some by occasional days with high winds.