DRAFT Groundwater Sampling and Analysis Report 2nd Quarter 2009

Camp Bonneville Military Reservation 23201 Northeast Pluss Road, Vancouver, WA 98682

> Prepared For: Washington State Department of Ecology

Prepared By: Bonneville Conservation, Restoration & Renewal Team

September 2009





Bonneville Conservation Restoration and Renewal Team, LLC Draft Groundwater Sampling and Analysis Report $2^{\rm nd}$ Quarter 2009

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1.0 INTRODUCTION

This document presents the results of the Groundwater Sampling and Analysis, 2nd Quarter 2009 as part of Remedial Action Unit 2C (RAU 2C) at the former Camp Bonneville Military Reservation (CBMR) in Clark County, Washington (**Figures 1.1 and 1.2**). This report has been prepared for and is submitted by the Bonneville Conservation Restoration and Renewal Team, LLC (BCRRT), the current owner of the CBMR. The report is based on previously approved Draft Supplemental Groundwater Remedial Investigation Work Plan (GWP; BCRRT 2006, revised 2007), previous remedial investigations, previously submitted groundwater monitoring reports for Landfill 4/ Demolition Area 1 (LF4/DA1) and Site-Wide Groundwater Sentinel wells, and direction given by Washington Department of Ecology (Ecology). This submittal is part of an ongoing dialogue between the Ecology and the BCRRT regarding the applicable requirements of the Prospective Purchaser Consent Decree (PPCD; Ecology, 2006) as it relates to the RAU 2C, which addresses groundwater quality concerns.

This quarterly report includes:

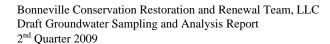
- Section 1 Introduction
- Section 2 Site Background,
- Section 3 Groundwater Sampling,
- Section 4 Data management and data quality assessment (DQA),
- Section 5 Groundwater monitoring results,
- Section 6 Recent trends in groundwater quality,
- Section 7 References.

This report is submitted in support of the remedial RI/FS and the specifications of regulations promulgated under the Washington State Model Toxics Control Act (MTCA) as set forth in Title 173-340 of the Washington Administrative Code (WAC) Section 350 – Remedial Investigation and Feasibility Study [WAC 173-340-350], the requirements of WAC 173-340-360 concerning the evaluation of cleanup action alternatives.

1.1 Purpose and Scope

The purpose of this groundwater monitoring for RAU 2C is to document and present:

- Address groundwater contamination arising from anthropogenic activities and determine the nature and extent of groundwater contamination at CBMR;
- Collect sufficient data to meet the Model Toxics Control Act (MTCA) requirements for site characterization (WAC 173-340) and other applicable groundwater monitoring guidelines published by Ecology (Ecology 1995, 2001, 2004, 2005a, 2005b and Cruz 2005).
- Generate data necessary to evaluate remedy performance; and,
- Provide an early warning should any contamination pose a threat to water supply wells or surface waters on or off CBMR.



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1.2 General Site Information

This section contains the following general facility information:

Project title: Remedial Investigation/Feasibility Study RI/FS for Site-Wide Groundwater -

Remedial Action Unit 2C

Project coordinator: Name: Michael Gage

Address: Bonneville Conservation Restoration and Renewal Team, LLC

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Phone number: (360)566-6990

<u>Facility location</u>: LF4/DA1 is within the boundaries of Camp Bonneville which is located in southwestern Washington; approximately 5 miles east of the Vancouver City limits in Clark County (see **Figure 1.1**).

<u>Dimensions of facility</u>: Camp Bonneville consists of approximately 3,840 acres. The LF4/DA1 consists of an approximately 1.82 acres located about 1,800 feet north of the Central Valley Floor and 2.5 miles northeast of where Lacamas Creek exits Camp Bonneville.

Present owner and operator: Camp Bonneville are owned and operated by the by BCRRT, LLC.

<u>Chronological listing of past owners and operators and operational history:</u> Since the early 1900's, the Department of the Army has owned and operated the Camp Bonneville site. In October 2006, the Army transferred ownership of the property to the County, which subsequently transferred the land to the BCRRT. BCRRT will hold the deed of the property during investigation and clean-up activities at the site. After the property is cleaned to Ecology standards the BCCRT will transfer the property back to the County

1.3 Site Location and Current Land Use

The 3,840-acre Camp Bonneville site is located northeast of Vancouver, Washington, in the southeastern region of Clark County (**Figure 1.1**). The property is approximately five miles from Vancouver, Washington and approximately seven miles north of the Columbia River. Camp Bonneville is located along the western foothills of the Cascade Mountain Range, with Camp Hill and Little Elkhorn Mountain to the northwest, Munsell Hill to the west, and Little Baldy Mountain to the south.

Vehicular access to Camp Bonneville is restricted to a single entrance. The entrance is located on SE 232nd Ave. and enters the site from the west at the Camp Killpack cantonment. The entrance is gated and monitored. Most recently, the facility had been used for weekend and summer training by the U.S. Army Reserve and Navy Reserve units from Southern Washington and Northern Oregon and was a sub-installation of Fort Lewis. Other Reserve and National Guard components, as well as the Federal Bureau of Investigation (FBI) and local law enforcement units, have also used the site. Operations at the facility seized in 1995 when CBMR was selected for closure under the 1995 Base Realignment and Closure (BRAC) process. From 1995 through 2008, the FBI and other law enforcement agencies continued to use the firing range known as the





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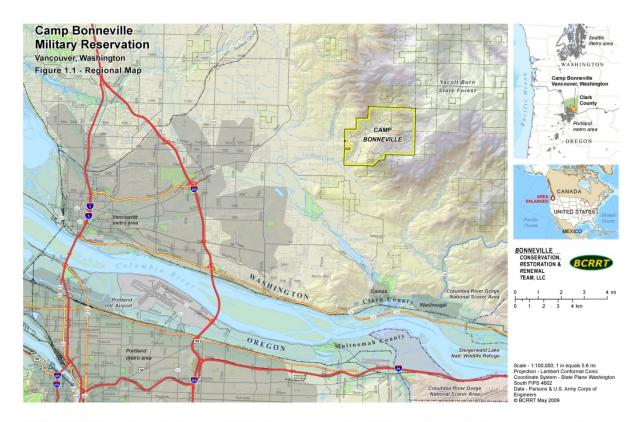
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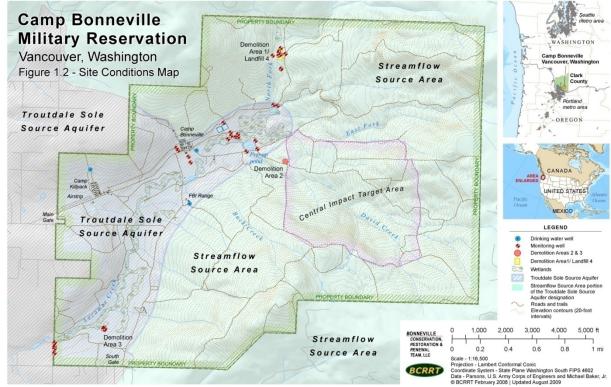
FBI Range. Currently, there is no military or law enforcement use of Camp Bonneville (grants for use of the site were cancelled beginning in November 1996). Camp Bonneville is mostly undeveloped, forested hillsides and creek side drainages. Former military barracks and training facilities are concentrated at Camp Killpack and Camp Bonneville cantonment areas. Other developed areas include firing ranges, a paved two-lane road connecting the main gate with the two cantonment areas, and a network of unpaved roads.

Between 1910 and 1995, the Army used Camp Bonneville for live fire of small arms, assault weapons, artillery, and field and air defense artillery. In the early 1950s, the Department of Defense arranged to lease an additional 840 acres from the State of Washington to expand training possibilities off of the post.

Since the Camp was officially closed, investigations have been conducted by the Army and its consultants in order to characterize the nature and extent of contamination at the site and to develop a plan for potentially transferring ownership. Clark County (County) expressed interest in the site and began the process for obtaining the property by developing a Reuse Plan. The Reuse Plan developed called for the majority of Camp Bonneville to be transferred to the County for the public benefit – education, law enforcement, and parks, with no financial gain to the County. Over the intervening years, several unsuccessful attempts were made to transfer Camp Bonneville from the Army to Clark County.

In October 2006, the Army transferred ownership of the property to the County which immediately transferred the land to the BCRRT. BCRRT will hold the deed of the property during investigation and clean-up activities at the site. After the property is cleaned to Ecology standards, BCCRT will transfer the property back to the County. The County will then begin implementing the Reuse Plan.





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2.0 SITE BACKGROUND

The overall groundwater evaluations were summarized and discussed the BCRRT, August 2009. Draft Remedial Investigation/Feasibility Study (RI/FS) for Site-Wide Groundwater Remedial Action Unit 2C (RAU 2C), Camp Bonneville, Vancouver, Washington. This Groundwater RI/FS presented the previously approved remedial investigations, no-further-action determinations, ongoing groundwater monitoring, and direction given by Ecology. The following excerpts are from this document (shown in *italics*) and provide a brief overview the Site-Wide Groundwater Sentinel Wells and Landfill 4/Demolition Area 1 portions of CBMR:

"3.4 Sentinel Wells

A series of eight groundwater monitoring wells were installed along the valley floor at the western boundary of the CBMR. Included were: shallow wells (top of the aquifer) LCMW01S, LCMW02S, LCMW03S and LCMW04S; and deep wells (bottom of the aquifer) LCMW01D, LCMW02D, LCMW03D and LCMW04D (see Figure 3.5). These Sentinel Wells were constructed for the express purpose of determining whether contaminants, regardless of source, were flowing off of the CBMR at this location."

"3.4.2 Groundwater Flow

The shallow sets of Sentinel Wells have exhibited water level measurements that indicate a water table measured at these locations that is representative of the water table of the valley floor. The surface of the shallow aquifer is sloped from the south to the bank of Lacamas Creek, showing that water recharged on the sides of the basin flows downward into the valley where it likely turns and flows westward in parallel with the creek. Some exceptions occurred in 2004 and 2005, when the well nearest Lacamas Creek, LCMW01S suggests under certain conditions, Lacamas Creek is a losing stream in this area and is recharging local groundwater. Hence, there is a small mounding affect beneath and approximate to the creek that diminishes in a relatively short distance due to the steep slope of the terrain.

Depending on the season, groundwater and the Creek maybe contributing to each other along the southwestern portion of the CBMR. A comparison of water levels measured in the paired shallow Sentinel wells indicates that Lacamas Creek is a losing stream in this portion of the creek during limited periods of time. Groundwater discharges to Lacamas Creek at other times such as in December 2003 and 2004 when the deeper well (LCMW01D) has a higher water level than the shallow well (LCMW01S). The further monitoring wells are from Lacamas Creek, the more frequently they display downward gradients indicative of active recharge zones. The exceptions occur in wetter months (April and December) when some wells display upward gradients indicative of water flowing from the basin walls and surging upwards as it approaches the valley floor. This may indicate a finite thickness for water flow that may create surface seeps during wet weather.

In summary, groundwater flows from the sides of the basin down into the valley floor just as surface runoff would flow. Using the water level data from the OB/OD Area 3 wells in conjunction within the Sentinel Wells it is clear that groundwater flows from the east to

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the west, draining the sub-surface basin just as Lacamas Creek drains the topographic basin. Moreover, comparison of water levels from all 27 monitoring wells installed at CBMR confirm the conceptual model that groundwater flow is analogous to the flow of surface water in Lacamas Creek and its tributaries. Water flows down from the basin walls and out the valley, leaving the site at the point where Lacamas Creek crosses the site boundary."

"3.1.2 Data Analysis

Groundwater samples were collected from the Sentinel Wells -- four two-well pairs (for a total of eight wells) located near the western boundary of Camp Bonneville where Lacamas Creek exits the site to the west (Site-Wide Groundwater Sentinel Wells, labeled as LC wells). Recent sampling results are summarized as follows:

- With the use of dedicated pumps and low flow purging/sampling techniques (which are designed to obtain water samples with lower turbidity), the reported total and dissolved metals concentrations have decreased significantly. All of the total and dissolved metals detections in groundwater from these wells are were below MTCA Method A and B regulatory screening levels with the exception of results for beryllium, which have consistently been reported as estimated values (i.e., groundwater sample concentrations of beryllium detected above the Method Detection Limit (MDL) but below the Minimum Reporting Limit (MRL) of the laboratory analytical equipment and whose accuracy is limited).
- Petroleum hydrocarbons have not been detected in any of the Sentinel Wells throughout the monitoring period of over seven years except for an isolated detection of diesel range petroleum hydrocarbons in LCMW02DW at 0.15 mg/L in January 2006.
- Perchlorate and explosive constituents have never been detected at any of the Sentinel Wells during seven years of groundwater monitoring.

The groundwater samples collected and analyzed to date display no reliable evidence of any contaminant in site groundwater being present at or near the site boundary or leaving the CBMR. All explosive compounds and total petroleum hydrocarbons were below the limits of detection.

Perchlorate had been detected near or at the MRL of 1 ug/L it an individual well on occasion (2004, 2005, 2008 and 2009). However, these data were found to result from laboratory errors (i.e. false positives) based on one or more of the following factors: non-detectable duplicate sample, rejection by third-party independent validator, laboratory process audit, or confirmation sampling.

Naturally occurring levels of inorganic elements were observed in the parts per billion ranges in both shallow and deep wells. The highest observed concentrations are generally associated with groundwater samples that had a high level of suspended solids in them. The comparable filtered sample for many of the metals displayed lower concentrations, indicating the elevated reading was the result of the acid preservative

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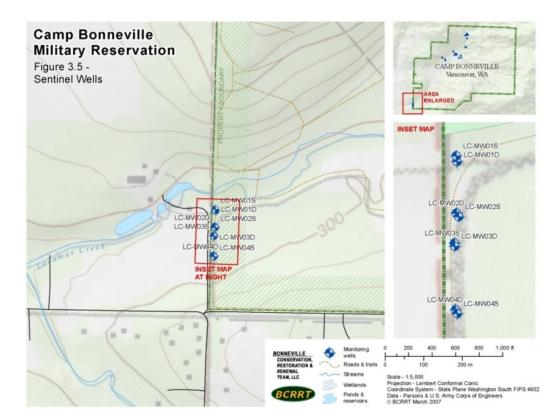
dissolving materials from the soil particles suspended in the sample. In any event, none of the metal concentrations (total or dissolved) from Sentinel Wells exceeded MTCA Method A or Method B criteria."

"3.4.3 Status Summary

Given the extensive groundwater monitoring that has been conducted at the Sentinel Wells (located across the Lacamas Creek valley) and the lack of contaminant findings over this extended period of time, Ecology adjusted the groundwater monitoring:

- There are no chemicals of concern in groundwater at the Sentinel wells. No explosive, propellants, petroleum hydrocarbons, metals, SVOCs, or VOCs (except common laboratory contaminants) have been detected at levels of concern.
- Four of the wells are cross-gradient and higher in elevation than the nested wells MW01S, MW01D, MW02S, and MW02D. If any groundwater contaminant plume migrates via a cross-gradient pathway (note that none have ever been detected at the CBMR boundary or the upgradient area near OB/OD Area 3) any potential contamination would be detected in these wells closer to Lacamas Creek rather than the nested wells MW03S, MW03D, MW04S and MW04D.
- Chemical analyses for VOCs, SVOCs, petroleum hydrocarbons (gas, diesel and oil range), and total/dissolved metals in groundwater samples from the Sentinel wells has been stopped as these analytes have never been detected in any of the sampling events conducted over more than six years..

While no constituents of concern have been detected, the Sentinel Wells will continue to be monitored per the Long-Term Monitoring Obligations in the PPCD."



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"3.2 <u>Landfill 4/Demolition Area 1</u>

Landfill 4/Demolition Area 1 (LF4/DA1) is located about 5,000 feet northeast of the Camp Bonneville Cantonment; the landfill underlies Demolition Area 1 (see Figure 1.2). Vancouver Barracks reportedly used the site for the disposal of building demolition debris during the mid-1960's. According to the Environmental Baseline Survey (EBS, Woodward Clyde 1999), the former CBMR facility manager reported that firearms and ammunition were also disposed at this location. Identified potential contaminants at the CBMR included building demolition debris, explosive and propellant residue, and debris from historic onsite ordnance demolition activities, total petroleum hydrocarbons (TPH), semi-volatile organic compounds (SVOCs), volatile organic compounds (VOCs), organochlorine insecticides and herbicides, and metals. According to the Supplemental Archive Search Report (SASR, URS 1999), historic activities at CBMR included training and disposal of unserviceable ammunition. In addition, the site had been used by a number of groups and agencies, including the Army, Portland Air National Guard (PANG), local Fire Departments, and law enforcement for training and disposal operations. For example, the Bureau of Alcohol Tobacco and Firearms brought explosive and firearms to this location for disposal by open detonation."

"3.2.1 Previous Investigations Summary

Site investigations (SI) were conducted to evaluate the potential for contamination resulting from past uses of the LF4/DA1. The investigation was directed primarily at evaluating potential environmental impacts from waste disposal within the landfill, but also took into account potential impacts from activities related to use of the site as an OB/OD ordnance demolition area. The primary objectives of the investigation were to evaluate whether the site poses a potential risk to human health or the environment, and to provide recommendations for additional actions (where appropriate), either for site remediation or to conduct additional investigations to better evaluate the need for and extent of remediation. The LF4/DA1 SI consisted of UXO avoidance, geophysical surveying, surface soil sampling, drilling and subsurface soil sampling, monitoring well installation and development, and groundwater sampling (URS 2003).

An area of buried debris disposal was identified to be approximately 120 by 200 feet during the geophysical survey. Other than a ground-penetrating radar (GPR) survey, no other types of testing were performed to delineate the actual presence of chemical constituents. The depth of the landfill material could not be determined through the use of geophysics; based on GPR profiles, it appeared to extend more than 11 feet bgs. During January 1999, groundwater was encountered at a depth of 10.4 feet below ground surface in monitoring well L4MW01 (upgradient well) and at 18.8 feet bgs in well L4MW02 (downgradient well). The report suggested that some of the landfill material could be in contact with groundwater, at least seasonally (URS 2003).

During the 2003 SI, the only constituents detected in soil (both near-surface and subsurface) at concentrations exceeding a MTCA Method B criteria were barium, copper, and possibly chromium. Total chromium was analyzed; however, the lowest screening criterion (which was exceeded) is based on chromium+6 (VI). Elevated barium and copper concentrations were detected in both upgradient and downgradient soil-boring samples. Arsenic, beryllium, and nickel were detected in soil samples at concentrations above MTCA Method B criteria for groundwater protections but below

background levels for Clark County. Low levels of one or more SVOCs, insecticides and herbicides, and VOCs were detected in some samples; however, concentrations of these constituents did not exceed the screening criteria, and several were suspected to be laboratory contaminants. Two surface soil samples were collected at RAU 2C, and 15 deeper soil samples were obtained from five borings drilled outside of the landfill area (URS 2003).

Initially, the only constituent detected in groundwater at a concentration exceeding a screening level was Royal Demolition Explosive (RDX, aka, cyclotrimethylene-trinitramine or hexahydro-1,3,5-trinitro-1,3,5-triazine). This compound was detected only in the presumed downgradient well (L4MW02). RDX may be associated with surface or nearsurface ordnance demolition activities, rather than with deeper buried building Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX) was also demolition debris. detected in L4MW02 (A), but at a concentration below the screening criteria. Low levels of three VOCs were detected in one or both wells; however, the concentrations detected were below the screening criteria. Subsequently, groundwater samples from the immediate area were found to contain perchlorate. Additional wells were installed to determine both the probable direction in which the extant plume was moving and the extent of the plume. The final two wells were installed in June of 2004 along the inferred path of migration. A total of 11 wells remain for monitoring purposes at LF4/DA1: L4MW01A; L4M201B; L4MW02A; L4MW02B; L4MW03A; L4MW03B; L4MW04A; L4MW05A; L4MW07B; L4M217; L4MW18. The A wells are installed and screened in the first water bearing strata encountered, while B wells are completed in the weathered bedrock. Wells L4MW17 and L4MW18 are relatively shallow wells completed just into the bedrock in a location where the alluvium is but a few feet thick (URS 2003).

Due to its relatively small size, location, explosive material hazards and potential impact to groundwater, the Army agreed to excavate and dispose of material in RAU 2C. In June 2004, a source removal action was initiated at LF4/DA1 for which the objective was to remove all fill materials and all soil contaminated above action levels. During the removal action, no construction debris was observed. In addition to materials associated with the surface ordnance disposal activities, three pits were discovered that had apparently been used for burning fireworks. Based on site observations, it appears that excess fireworks were placed in the pits and soaked with diesel oil prior to ignition. Combustion does not appear to have been complete and intact fireworks were recovered during the removal action. The pits were dug well into the heavy clay soil and one pit was completed into the saturated zone. The placement of fireworks in the saturated zone explains the observed contamination of groundwater with perchlorates in an environment that otherwise would not have significant infiltration. Following completion of the IRA excavation in September 2004 (see Figure 3.17), confirmatory samples indicated residual impacted soils at >20 feet below ground surface (bgs) for perchlorate, one location at > 8 feet bgs for RDX, and one location for HMX at > 5 feet bgs were present (see **Figure 3.17** and Tetra Tech 2006). Based upon the final confirmatory samples taken in December 2004, Ecology approved the completion of the soil excavation.

The excavation was filled to within three feet of the surface in January 2005 with clean and/or screened soils; however, the excavation was not completely filled in and graded until June 2005. Therefore, there was almost a year-long period (June 2004 to June 2005) when the excavation remained open. The open pit would have induced increased

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recharge through the ponding of rainfall, which would have infiltrated into the fill and surrounding subsurface soils. This would have resulted in the mounding of groundwater beneath the excavation for one year and in the subsequent mobilization of many dissolved constituents that had not been mobile before.

During the Interim Removal Action in 2004/2005, the likely source of contaminants was found to be a series of pits dug to the water level for the disposal of fireworks (believed to have occurred in the 1991 timeframe). While most of the perchlorate and RDX source material was removed, perchlorate and RDX remain in the subsurface

Changes to the local hydrology occurred during and after the IRA from excavations that were 1) advanced into more permeable zones, 2) were left open and/or filled with granular material for up to a year before final backfilling and placement of topsoil/cover material, and 3) regraded the site which changed the surface runoff/recharge.

BCRRT subsequently conducted three soil borings and collected groundwater samples using a Geoprobe® within the perimeter of LF4/DA1 with the highest residual perchlorate concentrations in soil according to the Final Interim Removal Action Report (Tetra Tech, February 2006) and are discussed below. The locations for the borings were upgradient, east, and southeast of LF4-MW-2B (see Figure 3.8).

In addition to the LF4/DA1 sampling, surface water samples were collected from Ecology selected locations in the North Fork of Lacamas Creek where there is a potential to receive groundwater from LF4/DA1. Water samples were collected from the center of the water column and along the eastern bank. Sampling and perchlorate analysis of three surface water locations in the North Fork of Lacamas Creek — (1) upstream/northwest of MW-4A, (2) directly across/west of LF4-MW2A&B pair, and (3) downstream/south where the creek goes through two 90°bends and the mapped residual Troutdale bedrock pinches out (see Figure 3.8).

Soil, groundwater, and surface water samples were collected for laboratory analysis for perchlorate and geotechnical/in-situ analysis for hydraulic conductivity (see **Appendix D**):

- Soil samples collected at various depths analyzed for perchlorate contained concentrations ranging from non-detect (fill material) to 2,100 ug/kg. Residual perchlorate was detected in the unsaturated soil. The upper zones of the borings indicated sandy silt while the lower zones indicated granular sand with some silt. The concentrations of perchlorate were consistent with the IRA confirmation samples (Tetra Tech 2006).
- Shallow groundwater perchlorate concentrations were 420 ug/L and 760 ug/L while a deeper sample was 350 ug/L.
- Three surface water samples and one field duplicate were collected from Lacamas Creek were all non-detectable for perchlorate.
- Three geotechnical samples revealed the following concerning the following about

subsurface soils at LF4/DA1

- 30' to 36' is a Silty Sand (SM) with a specific gravity of 2.757, a soil porosity of 66.0%, and composed of 55.7% sand, 34.1% silt and 10.2% clay,
- o 36' to 39' is a Silty Sand (SM) with a specific gravity of 2.756, a soil porosity of 64.6%, and composed of 60.3% sand, 33.4% silt and 6.3% clay, and
- o 40' to 41' is a Sandy Silt (ML) with a specific gravity of 2.769, a soil porosity of 65.7%, and composed of 49.8% sand, 38.8% Silt and 11.4% clay.
- Hydraulic conductivity results from geotechnical samples, in-situ aquifer tests, and previous aquifer tests performed by others are included as **Appendix D**."

"3.2.2 Site Specific Conditions

3.2.2.1 Surface Water Hydrology

The North Fork of Lacamas Creek bounds the LF4/DA1 to the north, west, and southwest and flows to the south where it enters the Central Valley and joins with the East Fork. The water quality of Lacamas Creek is monitored indirectly south of the LF4/DA in two monitoring wells that straddle the North Fork of Lacamas Creek (where it enters the Central Valley) and in the Sentinel Wells located where Lacamas Creek exits Camp Bonneville.

According to the March 2000 Final Project Completion Report, Surface Water Investigation of Lacamas Creek, Camp Bonneville, Vancouver, Washington, (Hart Crowser, 2000), the results of water samples collected from Lacamas Creek and North Fork of Lacamas Creek indicated that LF4/DA1 has not impacted surface water quality..

While the LF4/DA1 area is technically within the Streamflow Source Area for the Troutdale Sole-Source Aquifer System, it is in that portion of the Streamflow Area that contributes via surface water recharge of the Central Valley sediments – no groundwater recharge is believed to occur. The groundwater in the LF4/DA1 area does not directly connect to the Central Valley but may discharge into the North Fork of Lacamas Creek, where it would undergo significant dilution based on the size of the creek's recharge basin vs the LF4/DA1 recharge area.

3.2.2.2 <u>Geology</u>

Figures 2.2 and 3.8 show that the LF4/DA1 site is isolated geologically and is surrounded by wide expanses of the impermeable andesite bedrock (Tbem). Essentially the LF4/DA1 is located within a geologic "island" comprised of the conglomerate (see see Section 2.4.2) members of the Troutdale Formation (Ttfc), and there is no connection of the LF4/DA1 to the Troutdale units on the western edge of the CBMR.

In three dimensions, the geology of the LF4/DA1 area may be more accurately described as a Ttfc "cap" on a hillside otherwise consisting of Tbem. However,

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little remains of the original appearance of either rock formation due to extreme weathering. Well logs show that both units exist as sands, silts, and clays to a depth of about 70 feet. The conglomerate member of the Ttfc has been weathered to clayey silt and the andesite bedrock to sandy clay (see **Section 2.4.2** and well logs in **Appendix B**).

3.2.2.3 <u>Hydrogeology</u>

LF4/DA1 is located in an upland area of Camp Bonneville, north of the Central Valley. Figure 3.8 presents is a geologic map superimposed upon a topographic map and shows that there is a remnant valley fill of Ttfc (conglomerate member of the Troutdale Formation) beneath the site. However, this formation extends only to a maximum depth of about 15 feet near MW-2B and is not saturated. Groundwater occurs only within the saprolitic soil formed from the heavily weathered andesitic bedrock of the Elk Mountain basalt (Tbem)

A total of ten monitoring wells were installed around and near LF4/DA1 as part of the investigation of RAU 2C –LF4/DA1 (URS, 2003). Five of the wells (LF-MW-1A, 2A, 3A, 4A, 5A,) were screened in shallow soils (30 to 45 feet bgs) and four wells (LF-MW-1B, 2B, 3B, 7B) were screened in deep soils atop competent bedrock (50 to 72 feet bgs). Another shallow well (MW-6A) was installed to bedrock on the steep hillside west of the landfill and east of Lacamas Creek, but was reported as dry and has not been used. In the most recent sampling event (September 2008), the depths to water in the shallow wells ranged from 17 to 31 feet and those in the deep wells from 14 to 41 feet (see **Appendix B**).

At the LF4/DA1 site, all of the saturated overburden material encountered was saprolite and heavily weathered from the parent material (andesitic basalt with zeolite inclusions) into sandy silt or silty sand with white mottling. This overburden material graded into increasingly larger grain sizes with depth until competent rock was reached. There were zones of saturated sandy, silty, or clayey (angular) gravels atop the competent bedrock. Within the competent bedrock, open fractures were noted in the three rock cores (LF-MW-1B, 2B, and 3B) at LF4/DA1, most of which were reported as being oriented horizontally or nearly so (URS, 2003).

Such rock characteristics tend to direct groundwater flow horizontally within the overburden and the relatively shallow weathered zones of bedrock until it can move upwards in response to a hydraulic discharge point of lower pressure head (e.g., a stream). Therefore, groundwater occurrence in the bedrock is generally in the uppermost weathered/fractured zones and especially in the gravelly portions atop the competent rock."

"3.2.2.4 Groundwater Flow

Groundwater elevation data from a typical sampling event (September 2008, see Appendix B) were mapped for groundwater flow direction analysis in the following figures. Figure 3.9 is typical of the historical groundwater flow pattern in the shallow zone and it indicates that shallow groundwater flows west from LF-MW-1A until a groundwater divide is reached, where the flow separates toward either north (toward LF-MW-4A) or south (toward LF-MW-3A and 5A). Figure 3.10 is typical of the deeper zone and indicates that the deeper groundwater flows west from MW-1B in a semi-radial fashion toward the North Fork of Lacamas Creek, which is consistent with the surface topography. Therefore, groundwater from the LF4/DA1 site is expected to discharge to the North Fork of Lacamas Creek within 300 feet west and/or 250 feet southwest of the LF4/DA1 site."



Figure 3.9 – Typical shallow groundwater elevation contours.

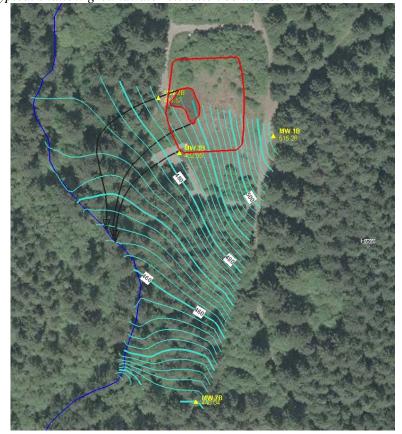


Figure 3.10- Typical deep groundwater elevation contours.

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Two hydrogeologic cross-sections were also constructed using the same data set. Figure 3.11 is a south-to-north cross-section from LF-MW-5A to 4A showing the groundwater divide in more detail, including the vertical dimension. LF-MW-2B lies just south of the groundwater divide. Figure 3.12 shows a west-to-east cross-section from LF-MW-1A to 2B. This figure shows the change in the vertical flow component across the site: near LF-MW-1B, the flow is mostly horizontal. Toward the west, the flow becomes increasingly vertical. It appears that increased infiltration through the relatively permeable fill in the formerly excavated area is causing this alteration in the vertical flow gradients. Figure 3.12 also may demonstrate why LF-MW-2B groundwater contains the highest perchlorate/RDX concentrations: the bedrock surface dips toward the west and, as impacted groundwater flows along the top of competent rock, it flows near well LF-MW-2B.

Estimates of the hydraulic conductivity of the saturated zones beneath LF4/DA1 had been made previously by using slug tests in several wells (URS 2003). However, the previous report questioned some of their own results as not corresponding to the observed stratigraphy (i.e., relatively high K values in silts and clays); therefore, the accuracy of their slug test data and/or analyses is doubtful. The raw slug test data and the corresponding digital AqTeSolv® files for those tests are not currently available for reanalysis.

A step-drawdown "yield" test had also been performed (URS 2003) in LF-MW-2B, but the data were not evaluated for hydraulic conductivity; fortunately, those data were available and were re-analyzed. The pumping rate and drawdown/recovery data were input to AqTeSolv® (version 3.5 Professional, Duffield, 2002) and analyzed using the Theis method for variable-rate pumping tests in an unconfined aquifer (a modification of Theis, 1935). The drawdown data in the pumping well were assumed to be greater than that in the formation due to friction in the well. The result was a good graphical match with the late recovery data, which are not affected by friction losses during the pumping phase. The result was a transmissivity value (T) of 9.0 ft²/d, which, when divided by the aquifer saturated thickness (b) of 44 feet, yields a hydraulic conductivity value (K) of 0.204 ft/d (7.2e-5 cm/sec).

This K value will be used along with other values derived from the Supplemental Data Collection slug tests conducted recently to obtain a representative K value for fate calculations. GP-3 was slug-tested three times each at two different depths (29 feet and 38 feet bgs). The mean K value for the 29-foot depth interval was 0.37 ft/day and the mean K of the 38-foot depth interval was 0.233 ft/day (BCRRT August 2009).

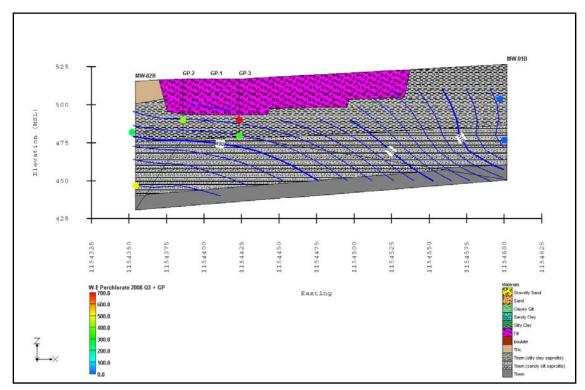


Figure 3.11– South-to-North Cross-Section at LF4/DA1 - Perchlorate Concentrations (ug/L) in Groundwater and Elevation Contours (Interval = 2 ft.)

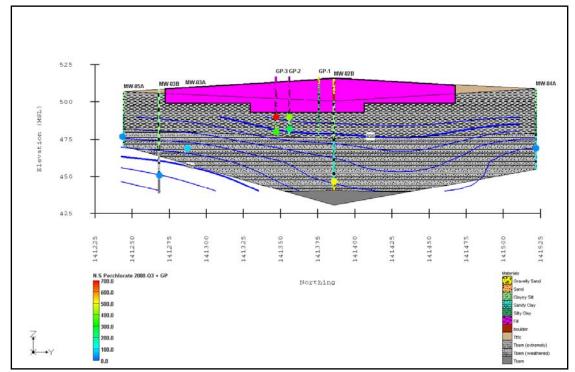


Figure 3.12 – West-to-East Cross-Section at LF4/DA1 - Perchlorate Concentrations (ug/L) in Groundwater and Elevation Contours (Interval = 2 ft.)

3.7.3.2 LF4/DA1Wells – Characteristics Derived from Groundwater Trends

The seasonal changes at L4-MW- 2A, 2B, and 3A, mounding at 1A, and the continued presence of mobile contaminants all support the observed hydrogeology conditions that the LF4/DA1 is acting in a manner analogous to a "bathtub". The "bathtub" is where water entering the area via infiltration becomes trapped because of the lower permeability "walls" and competent bedrock "floor" with no fast way out. The accumulated water causes mounding which slowly seeps out, taking dissolved contaminants with it.

- The observed seasonal variations in the shallow wells reflect dilution rather than migration out of the area. The wet/Winter conditions dilute the LF4/DA1 concentrations as fresh water recharges into the area; then as groundwater adsorbs, evaporates, and seeps out, the concentrations increase to peak levels during the dry/Summer conditions.
- The recent 4th Quarter 2008 spike in perchlorate concentration at the upgradient L4-MW-1A is directly attributable to the heavy precipitation event prior to and during the sampling event. The influx of water into the system created a mounding effect that forced impacted groundwater upgradient. The creation of this mounding reflects the inability of groundwater to easily migrate out of the local system.
- The generally stable presence of very mobile constituents such as perchlorate, chlorinated solvents, and RDX in an environment that experiences significant rainfall, lacks an overlying confining layer, and has a long timeline since the placement/release of source material all indicate that the local conditions have to be retarding the migration of contaminants out of the LF4/DA1 area.

Table 3-2
Perchlorate and RDX Maximum and Latest Detections by Well

COCs	Perchlor	ate ⁽¹⁾	RD	$\mathbf{Y}^{(1)}$
Well	Maximum	June '09	Maximum	June '09
L4MW01A	36	2.9	0.49	0.13
L4MW01B	1.2	1.1	0.92	ND
L4MW02A	280	195	40	19
L4MW02B	530	431	120	84
L4MW03A	120	83	13	9.4
L4MW03B	53	42	6.1	4.1
L4MW04A	40	34	2.8	2.8
L4MW05A	64	36	5.2	4.1
L4MW07B	$3^{(2)}$	2.3	ND	ND
L4MW017	ND	ND	ND	ND
L4MW018	ND	ND	ND	ND

⁽¹⁾ **Bold** values exceeded MTCA Method A or B Cleanup Levels.

⁽²⁾ Resampled value to correct a field cross-contamination result of 20 ppb that has not been repeated in the subsequent 8 quarterly sampling events.

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The Section 4.0 Conceptual Site Model/Risk Assessment concluded that:

"4.3 **Summary**

In order for there to be a risk, a complete environmental pathway by which chemicals may be transported to human or ecological receptors must exist. The only potentially complete pathways for constituents in groundwater moving away from LF4/DA1 are:

- 1) Future groundwater receptor, in the event that existing or new on-site wells (deep/bedrock wells) are used as a potable water source in the Central Valley.
- 2) Surface water for human health receptors (recreational users/fishers) via Lacamas Creek.
- 3) Surface water for ecological receptors in Lacamas Creek.

The Section 5.0 Cleanup Standards proposed the following point of compliance and cleanup levels:

"Table 5-2. Summary of Points of Compliance and Applicable Cleanup Levels.

	Landfill	Site-Wide Groundwater		
Point of Compliance:	LF4MW 1A&B, LF4MW 2A&B, LF4MW 3A&B, LF4MW 4A, LF4MW 5A, and LF4MW 7B	Surface Water Monitoring Points	LF4MW 17 and LF4MW 18	LCMW 1A&B, LCMW 2A&B, LCMW 3A&B, and LCMW 4A&B
MTCA Cleanup Level:	Model/Risk Based Method C ¹	Modified Method B ²	Method B	Method B
Perchlorate	1,300 ppb 600 ppb		11 ppb	11 ppb
RDX	95 ppb	59 ppb	0.8 ppb	0.8 ppb

Notes:

Based upon the Section 3.7.3.5 groundwater modeling and Section 4 risk assessment criteria.

Based upon the lowest cleanup level for Method B human health or ecologic receptors."

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3.0 GROUNDWATER SAMPLING

Baker conducted groundwater sampling for the 2nd Quarter 2009 events at 19 existing monitoring wells at the Sentinel Wells and LF4/DA1 Wells at CBMR (see **Figures 1.2, 3.5 and 3.8**). The sampling event was conducted from June 24 to June 29, 2009. All groundwater sampling was conducted in accordance with the procedures established in the previously approved Draft Supplemental Ground Water Remedial Investigation Work Plan (groundwater workplan/GWP; BCRRT November 2006, revised September 2007). The procedures detailed in the GWP include sample collection, sample labeling, chain-of-custody, field documentation, decontamination, and investigative-derived waste (IDW) handling. All on-site activities were performed in accordance with the CBMR Site Health and Safety Plan (HASP; BCRRT October 2006, revised August 2007)

Ecology approved modifications to the GWP included:

- Installation of dedicated bladder pumps in each of the wells on March 2008 (per the letter from Baker to Ecology, dated February 13, 2008).
- Reduction in the groundwater monitoring parameters based on historic sampling results (approved in a letter by Ecology, dated March 18, 2009):
 - o VOCs via USEPA Method 8260B (without tentatively identified compounds/TICs)
 - o Explosives including picric acid, nitroglycerin and PETN via USEPA Method 8330
 - o Perchlorate via USEPA Method 314.1
 - o Field Measurements of temperature, specific conductivity, dissolved oxygen, pH, oxidation reduction potential and water levels, via calibrated field instruments.

The Sentinel Wells will also be sampled annually for priority pollutant metals, semi-volatile organic compounds (SVOCs), polynuclear aromatic compounds (PAHs), and pH.

3.1 Well Purging and Sampling

Groundwater was collected via low-flow/minimal-drawdown well sampling techniques during purging and sampling. All of the wells have dedicated Solinst bladder pumps installed. The pumps are constructed with a PVC body and a Teflon bladder that is actuated via a surface controller and air supply (compressor) that are transported between the wells. The low flow purging technique is described in detail in the GWP. Low-flow sampling minimizes disturbance to the aquifer and is designed to ensure that samples collected from the wells are representative of the aquifer (without undue agitation/sediment).

At the well identified as LF4-MW-17, purging was discontinued when well was pumped dry. The well was allowed to recharge and samples were collected approximately 2-3 hours after purging began.

3.2 <u>Sample Collection</u>

Samples were collected into the laboratory-supplied sample containers directly from the end of the dedicated discharge tubing. Appropriate sample preservative had been supplied in the containers by the laboratory. Sample containers for VOCs were filled completely to the top of the container with no headspace/bubbles, to prevent sample dilution due to volatilization.

Samples were stored in coolers with ice and maintained in secured field vehicles or field barracks prior to



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daily shipment to the laboratory. Samples were maintained at 4°C during all phases of sample storage, prior to analytical testing.

Proper Chain-of-Custody (COC) documentation was maintained for all samples from the time of collection until the samples were shipped to the laboratory. COCs accompanied all of the samples and contained the following information: project number, sample numbers, number of containers, method(s) of preservation of samples, date and time of sample collection, analysis(es) requested, date and time of transportation to the laboratory, method of transportation, and any other information pertinent to the samples.

Samples were placed in appropriate shipping containers (i.e., coolers) and properly packaged to prevent damage to the samples. All samples were re-counted, the sample container labels checked against the field daily logbook and the COCs before each cooler was sealed. The completed COCs were sealed in plastic bags and placed in each cooler. Samples were picked up daily at the site by the analytical laboratory.

3.3 Quality Assurance/Quality Control Samples

As specified in the Ecology approved GWP, field QA/QC samples were collected for the purpose of assessing the quality of sampling and accuracy and precision of analyses. These QA/QC samples were submitted blind to the analytical laboratory. Field duplicate samples were collected at a frequency of 1 per 10 monitoring well samples. Matrix spike/matrix spike duplicate (MS/MSD) samples were collected at a frequency of 1 per 20 monitoring well samples. Trip blanks were submitted with each cooler that contained samples for VOC analysis.

The use of dedicated pumps in all of the wells eliminated the need for equipment rinsate or field blanks.

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4.0 DATA MANAGEMENT/ QUALITY ASSESSMENT

All of the analytical data was received from the laboratory in an electronic data deliverable (EDD) format for importation into the CBMR databases. Laboratory and any validator qualifiers are included with the data sets. Complete copies of the laboratory data packages and validation reports are included electronically on the attached CD as **Appendix A**.

All analytical services were performed in accordance with the Ecology approved GWP. Site QA/QC procedures to ensure are fully detailed in the GWP and include:

- Internal and external audits as part of regulatory agencies laboratory monitoring;
- Following field and laboratory objectives for Precision, Completeness, Representativeness, and Comparability,
- Adhering to Sampling, Custody Procedures, and Final Evidence Files.
- Use of appropriate Field Instruments and Laboratory Instruments Calibration, Field Measurements and Laboratory Analytical Methods, field QA/QC samples, and Field and Laboratory Quality Control Checks,
- Field Performance and System Audits,
- Use of Instrument Preventative Maintenance protocols, and
- Timely Corrective Actions

BCRRT technical staff reviewed the analytical data and support documentation and determined that the data was usable. Trip blank samples submitted were non-detectable for VOCs. Field duplicate samples were within the relative percent differences (RPD) goals established in the GWP. A third party data validation was conducted for the explosives parameters analysis, in accordance with the GWP and USEPA methods.

The analytical tables include the appropriate State of Washington MTCA levels for comparison with regulatory and risk-based criteria. MTCA Method A and B Cleanup values and applicable, relevant and appropriate state and federal groundwater screening values were obtained from the Ecology CLARC database (https://fortress.wa.gov/ecy/clarc/Reporting/CLARCReporting.aspx). MTCA Method B-Modified and Method C Cleanup values were established in the Draft RI/FS for Site-Wide Groundwater (BCRRT August 2009) currently under review by Ecology.

4.1 Field Data Quality Assessment

While there are no specific data quality objectives for the measurement of field parameters (such as temperature, pH, ORP, conductivity, dissolved oxygen, and turbidity), stabilization was considered reached when three consecutive readings were within ± 0.3 for pH, ± 1 degrees C for temperature, ± 10 percent for specific conductance, ± 10 mV for ORP, and ± 0.5 mg/L for DO. If five well volumes were purged from the subject well and stabilization had not been met, sampling occurred regardless of field parameter stabilization.

4.2 Quality Control Sample Assessment

Trip blanks accompanied the groundwater samples for VOC analysis that were consolidated daily into one cooler and shipped to the laboratory. Trip blanks were shipped on June 24, June 25, June

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26 and June 29, 2009. All four trip blanks were analyzed for VOCs and none had compounds detected above the method detection limit.

One duplicate sample was collected from each of the study areas. The duplicate samples were analyzed for the same constituents as the source sample. The RPD was calculated as the difference between the values divided by the average of the values. A significant difference between duplicate values for a few parameters indicates potential problems with the precision of specific analyses. A significant difference for many parameters indicates potential problems with the sample-collection procedures.

Table 4-1
Duplicate Sample Results and Relative Percent Difference

Site Sample ID	23LCMW04SW	23LCMW0460W	Relative	23L4MW03BW	23L4MW460W	Relative
Sample Date/Time	6/24/2009	6/24/2009	Percent	6/26/2009	6/26/2009	Percent
Units	ug/L	ug/L	Difference	ug/L	ug/L	Difference
1,1,1-Trichloroethane	ND	ND		ND	ND	
1,1-Dichloroethane	ND	ND		ND	ND	
1,1-Dichloroethene	ND	ND		ND	ND	
1,3,5-Trinitrobenzene	ND	ND		ND	ND	
2,4-Dinitrotoluene	ND	ND		ND	ND	
2-Nitrotoluene	ND	ND		ND	ND	
Dichlorodifluoromethane	ND	ND		ND	ND	
HMX	ND	ND		ND	0.029 J	
Perchlorate	ND	ND		41.9	40.5	3.34
RDX	ND	ND		4.1	4.1	0.00
Toluene	ND	ND		ND	ND	
Trichloroethene	ND	ND		ND	ND	

The Sentinel well selected for blind field duplicate analysis was LCMW-04S; the field duplicate was identified as LCMW-0460. There were no detections in the sample or the associated field duplicate located at the Sentinel Wells at Lacamas Creek; therefore no values were calculated for RPDs. Another blind field duplicate was collected from L4MW-03B; the duplicate was identified as L4MW-460B. Perchlorate was detected at 41.9 and 40.5 ug/L, respectively. The comparison of the perchlorate results indicates a RPD of 3.34% well below the 20% threshold indicated in the GWP for an acceptable difference. RDX was also detected in the LF4 sample and associated field duplicate; both results were 4.1 ug/L; there is no difference in the RPDs.

4.3 Laboratory Analysis Chemical Data Quality

The method blanks for the explosives data set was determined to exhibit contamination for the constituent 1,3,5-trinitrobenzene. This contamination resulted in 80% of the samples reporting a false positive results for 1,3,5 trinitrobenzene. Baker decided to have an independent data validator review all of the explosives analysis to determine whether there was any data quality issues associated with this method blank contamination. The independent validator determined that these results should be reported as a non-detect at the method detection limit; no other qualifiers were required by the validator.

During the groundwater sampling event for the 2nd Quarter 2009, the deviations from standard procedures of the GWP included the use of dedicated pumps in each of the wells and elimination of equipment rinsate and field blanks.

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5.0 GROUNDWATER MONITORING RESULTS

Soil boring/well construction logs, historic data results, well numbering, and construction details are included in the previous work plans and quarterly sampling reports (see **Section 7.0**). Water level depths and groundwater field parameters for pH, temperature, conductivity, ORP, dissolved oxygen, and turbidity for the 2nd Quarter/June 2009 sampling event are shown on **Table 5-1**:

Table 5-1- Summary of Field Parameters

Double to Water Consider							
0	.	Depth to	Water	Temperature	Specific		
Sample ID	Date	Water	Elevation	· .	Conductivity		
		ft below TOC*	Feet msl	°C	uS/cm		
23L4MW01AW	6/29/2009	16.74	514.66	10.18	29		
23L4MW01BW	6/29/2009	13.52	516.05	10.34	25		
23L4MW02AW	6/29/2009	35.5	484.43	11.17	33		
23L4MW02BW	6/29/2009	53.62	464.84	10.85	73		
23L4MW03AW	6/26/2009	30.17	484.68	11.7	23		
23L4MW03BW	6/26/2009	27.51	483.96	11.32	48		
23L4MW04AW	6/29/2009	28.23	483.56	10.19	17		
23L4MW05AW	6/26/2009	24.58	485.33	10.64	27		
23L4MW07BW	6/26/2009	40.2	440.6	9.94	33		
23L4MW17W	6/24/2009	10.88	350.6	11.89	220		
23L4MW18W	6/24/2009	11.77	351.07	11.48	121		
23LCMW01SW	6/26/2009	5.72	284.435	11.13	85		
23LCMW01DW	6/26/2009	6.01	284.242	12.02	88		
23LCMW02SW	6/26/2009	6.51	284.676	11.25	86		
23LCMW02DW	6/26/2009	6.86	284.731	11.76	91		
23LCMW03SW	6/26/2009	5.76	285.15	10.98	85		
23LCMW03DW	6/26/2009	5.82	285.16	12.02	93		
23LCMW04SW	6/24/2009	5.56	286.067	12.92	9.2		
23LCMW04DW	6/24/2009	6.21	285.579	10.89	100		

Sample ID	Date	Dissolved Oxygen mg/l	pH S. <i>U</i> .	Oxydation Reduction Potential Millivolts	Turbidity
23L4MW01AW	6/29/2009	5.2	5.09	269.1	0.41
23L4MW01BW	6/29/2009	3.9	5.21	279.3	0.44
23L4MW02AW	6/29/2009	3.1	4.8	337.9	0.22
23L4MW02BW	6/29/2009	0.9	5.69	58.6	0.22
23L4MW03AW	6/26/2009	7.3	5.67	252.1	0.39
23L4MW03BW	6/26/2009	7.49	5.93	237	3.43
23L4MW04AW	6/29/2009	2.8	4.95	297.4	1.21
23L4MW05AW	6/26/2009	7.16	5.57	247.2	0.68
23L4MW07BW	6/26/2009	7.28	5.59	237	0.11
23L4MW17W	6/24/2009	5.62	7.52	84.7	4.01
23L4MW18W	6/24/2009	7.02	6.32	140.2	2.72
23LCMW01SW	6/26/2009	7.78	6.79	158.9	0.28
23LCMW01DW	6/26/2009	7.81	6.87	149.6	0.36
23LCMW02SW	6/26/2009	7.98	7.05	141.5	0.4
23LCMW02DW	6/26/2009	7.92	7	134.6	0.55
23LCMW03SW	6/26/2009	8.21	6.81	121.8	0.42
23LCMW03DW	6/26/2009	8.16	6.87	153.7	0.35
23LCMW04SW	6/24/2009	8.52	6.7	174.5	0.51
23LCMW04DW	6/24/2009	8.47	6.66	90.5	0.64

ft below TOC – Feet below top of casing

ft msl – feet to mean sea level

°C – degrees Celsius

uS/cm - microSiemens per centimeter

mg/L – milligram per liter/part per million

s.u. – standard unit

ntu - nephelometric turbidity units

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5.1 <u>Sentinel Wells</u>

Groundwater samples were collected on June 24th and 25th, 2009 from the Sentinel Wells, which consist of four monitoring well pairs located at along the southwestern corner of CBMT where Lacamas Creek exits the site (see **Figures 1.2 and 3.5**). A field duplicate sample (labeled LCMW460W) was collected from Monitoring Well LCMW04S. Extra volume of groundwater was collected from Monitoring Well LCMW03B for the purpose of supplying extra water for laboratory MS/MSD samples. Trip blanks accompanied all groundwater VOC sample containers.

VOCs, explosive compounds, RDX, HMX, nitroglycerine, PETN, and picric acid were not detected in any of the Sentinel Wells groundwater samples; see **Table 5-2** below:

Table 5-2 Summary of Sentinel Well Groundwater Sample Results

	building of bei			
Site Sample ID	23LCMW01DW	23LCMW01SW	23LCMW02DW	23LCMW02SW
Sample Date/Time	6/25/2009	6/25/2009	6/25/2009	6/25/2009
Units	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND
2-Nitrotoluene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
HMX	ND	ND	ND	ND
Perchlorate	ND	ND	ND	ND
RDX	ND	ND	ND	ND
Toluene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND

Site Sample ID Sample Date/Time Units	23LCMW03DW 6/24/2009 ug/L	23LCMW03SW 6/25/2009 ug/L	23LCMW04DW 6/24/209 ug/L	23LCMW04SW 6/24/2009 ug/L
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND
2-Nitrotoluene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
HMX	ND	ND	ND	ND
Perchlorate	ND	ND	ND	ND
RDX	ND	ND	ND	ND
Toluene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND

ug/L – microgram per liter/part per billion

ND - Non-detectable

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5.2 Landfill 4/Demolition Area 1

Quarterly groundwater samples have been collected from eleven wells associated with LF4/DA1 (see **Figures 1.2 and 3.8**) since 2001, except between April 2002 and December 2003. Eight of those wells surround the former landfill area (LF4-MW01A&B, LF4-MW02A&B, LF4-MW03A&B, LF4-MW04A, and LF4-MW05A), with one located down/side gradient to the south (LF4-MW07B) and two wells (LF4-MW17 and LF4-MW18) located where the North Fork of Lacamas Creek enters the alluvial deposits in the valley (part of the Troutdale Sole Source Aquifer).

Naturally occurring levels of inorganic elements (metals) were observed in the parts per billion ranges in all of the wells (Ecology 1994). Historically the highest observed concentrations were generally associated with samples that had a high level of suspended solids in them. The comparable filtered sample for many of the metals have displayed lower concentrations, indicating the elevated reading was the result of the acid preservative dissolving materials from the soil particles suspended in the sample. In June 2005 the total mercury concentration in well L4MW03A (5.6 ug/L) exceeded the MTCA Method A criteria (2 ug/L). The associated dissolved mercury analysis (0.09 ug/L) was well below MTCA Method A criteria. All previous and subsequent mercury analyses from this well have been at non-detect levels (that are below the MTCA criteria). A significant fraction of the other site-wide wells also had laboratory reported mercury detections (all below MTCA criteria) in this single sampling event (LFMW1B, 2A, 2B, 4B, 4A, 7B, 17 18; MW3S, 3D, 4S, 4D). This pattern is interpreted to be a laboratory error or laboratory equipment contamination.

No other metals (total or dissolved) from RAU 2C have exceeded the MTCA Method A or Method B criteria. Ecology approved the removal of metals from the routine monitoring parameters at LF4/DA1 in 2006.

Groundwater samples were collected from the LF4/DA1 monitoring wells (see **Figures 1.2 and 3.8**) on June 25th, 26th, and 29th, 2009. A field duplicate sample (labeled L4MW460W) was collected from Monitoring Well L4MW03B. Trip blanks accompanied all groundwater VOC sample containers.

PETN, picric acid, and nitroglycerin, were not detected in any of the groundwater samples from shallow or deep monitoring wells. HMX and RDX were not detected in Monitoring Wells L4MW17, L4MW18, L4MW01B, and L4MW07B. HMX and RDX were both detected in monitoring wells L4MW02A, L4MW02B, L4MW03A, and L4MW05A. RDX only was detected in monitoring wells L4MW01A, L4MW03B, and L4MW04A.

Perchlorate was detected in groundwater samples from all the LF4/DA1wells except L4MW17 and L4MW18. The concentrations range from 1.1 μ g/L at L4MW01B to 431 μ g/L at L4MW02B. The highest levels of HMX, RDX, and perchlorate were found in the groundwater samples from the paired monitoring wells MW02A and MW02B.

VOCs detected at well L4MW02B included 1,1-dichloroethane, 1,1-dichloroethene, 1,1,1-trichloroethane, 2,4-dinitrotoluene, and dichlorodifluoromethane, although below applicable MTCA Method B cleanup values. VOCs were not detected in any of the other monitoring wells; see **Table 5-3** below:

Complete copies of the laboratory data packages and validation reports are included electronically on the attached CD as **Appendix A**.



Table 5-3 Summary of LF4/DA1Well Groundwater Sample Results

Site Sample ID	23L4MW01AW	23L4MW01BW		23L4MW02BW
Sample Date/Time	6/29/2009	6/29/2009	6/29/2009	6/29/2009
Units	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	ND	ND	19
1,1-Dichloroethane	ND	ND	ND	19.2
1,1-Dichloroethene	ND	ND	ND	6.15
1,3,5-Trinitrobenzene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	0.36 J
2-Nitrotoluene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	23.9
HMX	ND	ND	3.8 J	4.3 J
Perchlorate	2.9	1.1	195	431
RDX	0.13	ND	19 J	84 J
Toluene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND

Site Sample ID Sample Date/Time Units	23L4MW03AW 6/26/2009 ug/L	23L4MW03BW 6/26/2009 ug/L	23L4MW04AW 6/29/2009 ug/L	23LF4MW5A 6/26/2009 ug/L
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND	ND
2-Nitrotoluene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
HMX	0.38	ND	ND	0.25 J
Perchlorate	82.6	41.9	34.2	35.9
RDX	9.4	4.1	2.8 J	4.1 J
Toluene	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND

Site Sample ID Sample Date/Time	23LF4MW7B 6/26/2009	23LF4MW17SW 6/25/2009	23LF4MW18SW 6/25/2009
Units	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND
1,3,5-Trinitrobenzene	ND	ND	ND
2,4-Dinitrotoluene	ND	ND	ND
2-Nitrotoluene	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND
HMX	ND	ND	ND
Perchlorate	2.3	ND	ND
RDX	ND	ND	ND
Toluene	ND	ND	ND
Trichloroethene	ND	ND	ND

ug/L – microgram per liter/part per billion

ND – Non-detectable

J – estimated value

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6.0 GROUNDWATER QUALITY TRENDS

6.1 Sentinel Wells

The Sentinel Well groundwater result trends are as follows:

- With the use of dedicated pumps and low flow purging/sampling techniques (which
 obtain water samples with lower turbidity), the total and dissolved metals concentrations
 have decreased significantly. All of the total and dissolved metals detections in
 groundwater from these wells were below MTCA Method A and B regulatory screening
 levels.
- Petroleum hydrocarbons have not been detected in any of the Sentinel Wells throughout the monitoring, except for an isolated detection of diesel range petroleum hydrocarbons in LCMW02DW at 0.15 mg/L in January 2006.
- Perchlorate and explosive constituents have not been detected above the laboratory detection limits at the Sentinel Wells, following data validation and data quality assessments.

6.2 LF4/DA1Wells – Data Trends

Based on our recent review of historic groundwater data, the following observations summarize groundwater conditions at and around the LF4/DA1 site; detections are shown graphically for each well in **Appendix B**.

- All of the VOCs detected (primarily at LF4-MW-2B) continue to be well below MTCA Method A and B Cleanup Levels (see **Table 6-1**). Concentrations of 1,1-dichloroethene, 1,1- dichloroethane and 1,1,1-trichloroethane have been decreasing slowly and dichlorodifluoromethane, 1,2-dichloroethane, tetrachloroethene and trichloroethene results have been non-detectable for the last year.
- HMX and RDX concentrations in groundwater have been either stable, below MTCA levels, or decreasing slowly with consistent concentration distributions throughout all of the 27 LF4/DA1 groundwater sampling events (2001 to 2009; see **Figure 6.1**).
- Well LF4-MW-1A the shallow upgradient well perchlorate concentrations have decreased to previous levels (ranging from 1.6 to 7 μg/L) from the 36 μg/L detected in 4th Quarter 2008 during and following a heavy precipitation event and correlate with RDX variations (see **Figure 6.2**).
- Well LF4-MW-1B the deep upgradient well has low perchlorate concentrations; the adjacent shallow well LF-MW-1A has a history of low perchlorate and RDX concentrations. Since this well is located upgradient of the LF4/DA1, neither the detection nor absence of perchlorate at this well affects the monitoring program.

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- Well LF-MW-2A perchlorate concentrations appear to have reached a degree of equilibrium since 2005 with a consistent concentrations of perchlorate, RDX and HMX, which are all clearly affected by seasonal changes in recharge (see **Figure 6.3**). The seasonal variation appears to be inversely correlated with increased precipitation/groundwater elevations:
 - o The lowest reported perchlorate concentrations, the highest measured groundwater levels and the lowest reported precipitation totals have generally occurred in the first quarter (Winter) events each year.
 - o The highest reported perchlorate concentrations, the lowest measured groundwater levels, and the highest reported precipitation totals usually occurred in the third quarter (Summer) events of each year.
- L4MW2B perchlorate levels follow a stable, quasi-seasonal pattern. The 1st and 2nd Quarters in 2009 show the beginning of the downward portion of this pattern. The clearly seasonal perchlorate/RDX/HMX concentration patterns observed in L4-MW-2A are not repeated in the LF-MW-2B data (see **Figure 6.4**).
- Well L4-MW-3A perchlorate concentrations have remained relatively stable with a slightly decreasing trend since a peak concentration of 120 µg/L occurred during the 3rd quarter 2006 sampling event. RDX concentrations are stable at about 10 ug/L.
- Well L4-MW-3B perchlorate concentrations have remained relatively stable with an overall decreasing trend since a peak concentration (55 μg/L) was observed in the 3rd and 4th quarter 2006 sampling events. RDX concentrations are stable at 5 ug/L.
- Well L4-MW-4A perchlorate concentrations have remained relatively stable (29 to 34 μg/L) since a peak concentration (40 μg/L) was observed in the 4th quarter 2006 and 2nd quarter 2007 sampling events. The common laboratory contaminant, methylene chloride that was detected (0.14 ppb) in the 2nd Quarter 2008 sample, has not been detected in later events.
- Well L4-MW-5A perchlorate concentrations have been generally decreasing from a peak of 64 ppb in the initial sampling event in the 3rd quarter 2001 to less than 40 ppb during the last 7 quarters. The trace detections of tetrachloroethene have been non-detectable for the last 3 quarters. RDX concentrations have been consistently less than 5 ug/L.
- Well L4-MW-7B perchlorate concentrations have been generally stable at 2 to 3 ppb for the last 20 quarterly sampling events; with the exception of an apparent field cross contamination issue during the 1st quarter 2006 event.
- Well L4-MW-17 the 2^{nd} Quarter 2008 estimated (above the MDL but below the MRL) concentrations of 1,2,4-Trimethylbenzene and Naphthalene (0.12 and 0.35 μ g/L, respectively) have not been detected in subsequent events.

• Well L4-MW-17 and 18 – the monitoring wells located at the beginning of the Central Valley Floor were non-detectable for perchlorate throughout the 20 sampling events

Table 6-1 Summary of Maximum Groundwater Monitoring Detections vs MCTA Cleanup Levels

	Concentration	on (ppb/μg/L)	MTCA Cleanup Level		
	Maximum		Groundwater (ppb/µg/L)		
Contaminant	Dectection (1)	Well ID	Method A	Method B	
HMX	4.6	L4MW02A		400	
RDX	120	T 43433702D		0.8	
Perchlorate	530	L4MW02B		11	
Picric Acid	2.9		(2)		
Nitroglycerine	8.4		(2)		
1,1-Dichloroethene	36	L4MW02B		400	
1,1- Dichloroethane	45			1600	
1,1,1-Trichloroethane	>200 in '03		200		
	>50 in '07				
1,2-Dichloroethane	1.58		5 (2)		
2,4-Dinitrotoluene	0.36		` ′	32	
Isopropylbenzene	0.2		(2)		
Methylene Chloride	2.58	L4MW02B	5 (2)		
n-Propylbenzene	0.2	L4WW 02B	(2)	48	
Tetrachloroethene	1.1		5		
Trichloroethene	0.26		5 (2)		
Trichlorofluoromethane	0.22		5 (2)	2,400	
Dichlorodifluoromethane	190			1,600	
1,3,5 Trinitrobenzene	0.13	L4MW01A		43,000	
Naphthalene	0.35	L4MW17	160 ⁽²⁾		

⁽¹⁾ **Bold** values exceeded MTCA A or B Cleanup Levels.

The quarterly sample results continue to be less than the Applicable Cleanup Levels as presented in the Draft RI/FS for Site-Wide Groundwater (RAU2C/BCRRT August 2009) currently under review by Ecology.

Not retained due to low frequency detection (one or two times out of > 250 samples).



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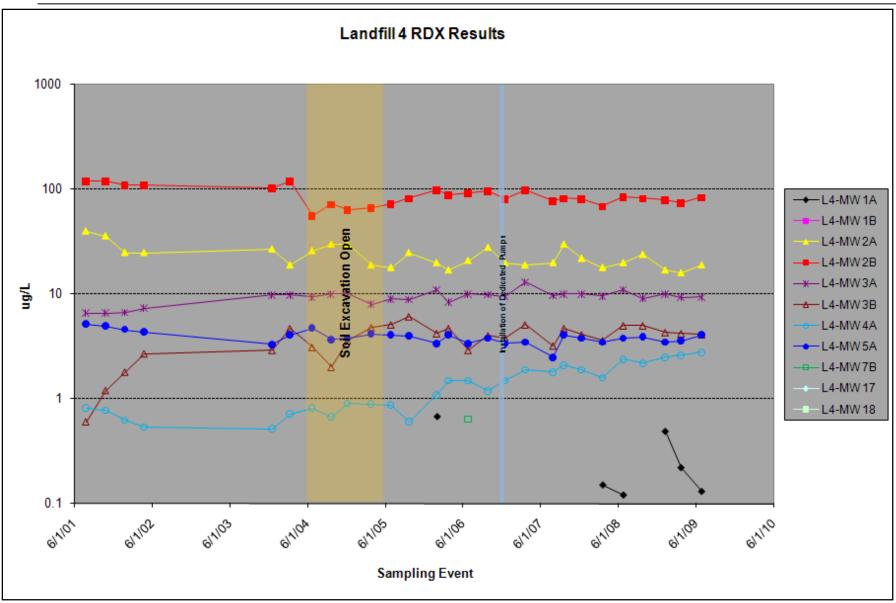


Figure 6.1 LF4/DA1 Groundwater Monitoring RDX Results

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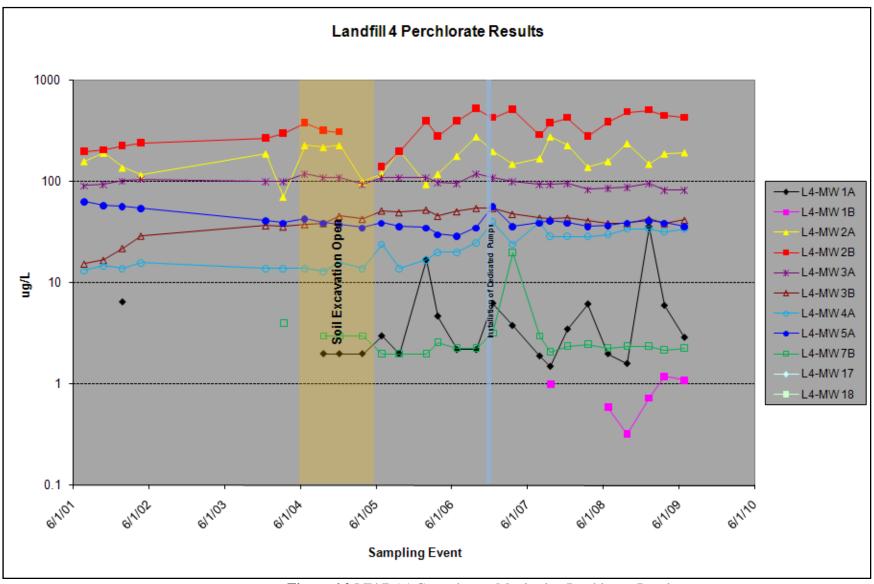


Figure 6.2 LF4/DA1 Groundwater Monitoring Perchlorate Results

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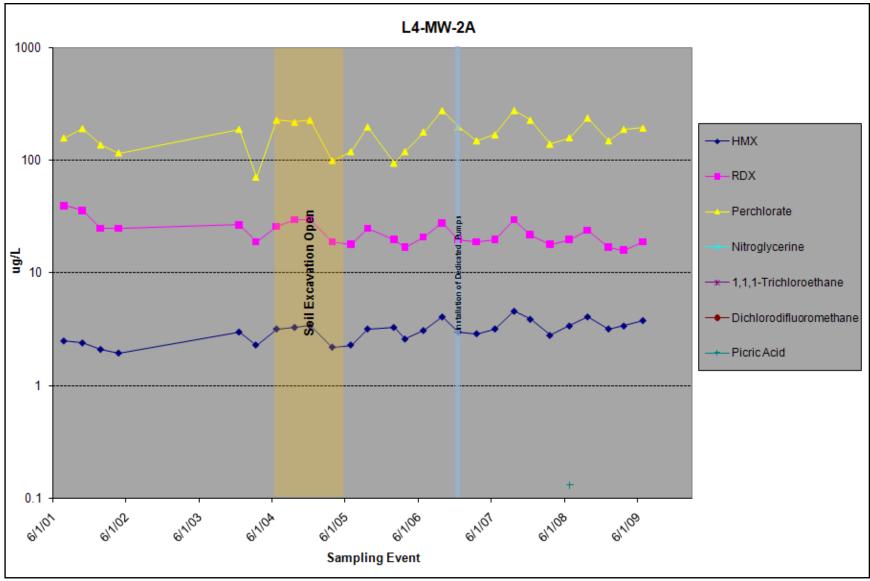


Figure 7.3 LF4/DA1 Perchlorate Results, Groundwater Elevation, and Precipitation - LF4-MW-2A

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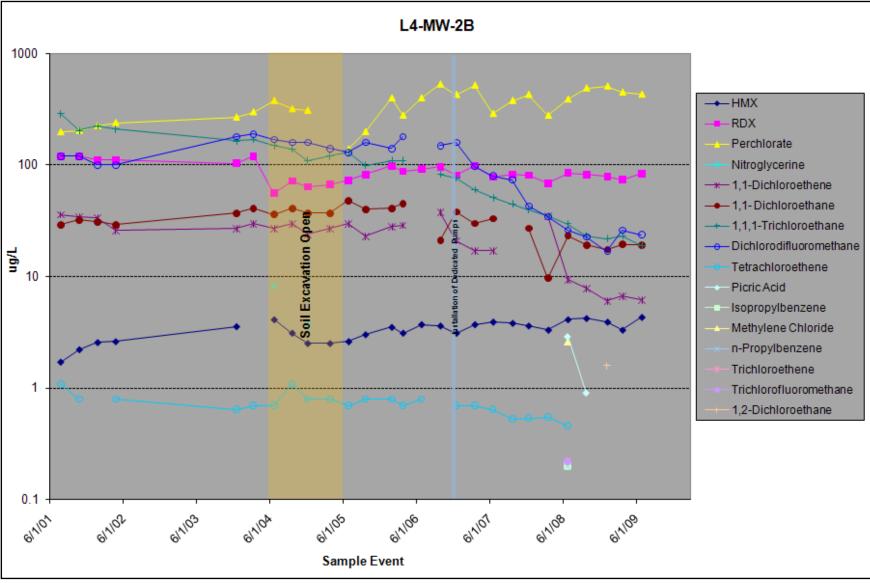


Figure 6.4 LF4/DA1 Perchlorate Results, Groundwater Elevation, and Precipitation - LF4-MW-2B

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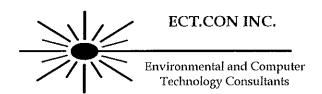
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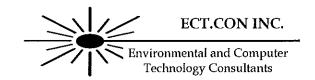
Michael Baker Jr., Inc

Camp Bonneville

SDG#: PSF0784



3531 Fox Chase Drive Imperial, PA 15126 (724) 695-8042 FAX (724) 695-2698 e-mail: ectconinc@comcast.net



Data Validation Report

SDG#	PSF0784
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

Date	Location	Portland ID	Sacramento	Explosives	Matrix
Sampled			ID	1	
06/24/09	23LCMW04DW	PSF0784-01	LFQAK	Х	Aqueous
06/24/09	23LCMW04SW	PSF0784-02	LFQAL	Х	Aqueous
06/24/09	23LCMW0460W	PSF0784-03	LFQAM	Х	Aqueous

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

SUMMARY

The sample set for the Camp Bonneville site consists of three aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

- Data Completeness
- Holding Times
- * Calibration (Initial and Continuing)
 - Blanks
- System Monitoring Compounds (Surrogate Spikes)
- Matrix Spike/Matrix Spike Duplicates
- Laboratory Control Standard Results
- Target Compound Identification
- Compound Quantification and Reported Contract Quantitation Limits
- System Performance

^{*} Criteria were met for this evaluation item.

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

FINDINGS

1. Blanks

The laboratory method blank exhibited contamination for the following parameter:

Blank	Compound	Maximum	Action Limit	Action
		Concentration	(ppm)	
		(ppb)		
LFW791	1,3,5-Trinitrobenzene	0.038	0.19	U sample results < RL

RL - reporting limit

NOTES

Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was not analyzed with this SDG. A laboratory control sample was analyzed. Data were not qualified on this basis.

Laboratory Control Sample Results

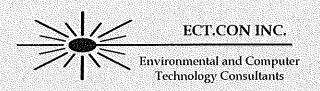
Recovery of 12 out of 17 compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the associated samples. Data were not qualified on this basis.

Field Duplicate Results

No field duplicates were included with this SDG. Data were not qualified on this basis.

Glossary of Data Qualifiers

Not Detected.	The associated number indicates approximate sample
	concentration necessary to be detected.
Not Detected.	Quantitation limit may be inaccurate or imprecise.
Analyte Present.	Reported value may not be accurate or precise.
Consider Present.	Tentative identification. Special methods may be needed to
	confirm its presence or absence in future sampling efforts.
Unusable Result.	Analyte may or may not be present in the sample.
Unusable Result.	Analyte may or may not be present in the sample.
	Not Detected. Analyte Present. Consider Present. Unusable Result.



Annotated Form 1's (Spreadsheet)

TestAmerica Portland

Client Sample ID: PSF0784-01

HPIC 231CMW040W

Lot-Sample #...: G9F260326-001 Work Order #...: LFQAK1AC Matrix..... WATER

Date Sampled...: 06/24/09 Date Received..: 06/26/09 Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1 Method.....: SW846 8330

		REPORTIN	īG		
PARAMETER	RESULT	LIMIT	UNITS	MDL	
Nitroglycerin	NI)	0.65	ug/L	0.15	
PETN	MD	0.65	ug/L	0.23	
Picric Acid	NI)	1.0	ug/L	0.12	
2-Amino-4,6-	NI)	0.20	ug/L	0.10	
dinitrotoluene					
4-Amino-2,6-	NI)	0.10	ug/L	0.022	
dinitrotoluene					
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050	
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050	
2,6-Dinitrotoluene	NI)	0.10	ug/L	0.050	
HMX	NI)	0.10	ug/L	0.027	
Nitrobenzene	ND	0.10	ug/L	0.050	
2-Nitrotoluene	NI	0.40	ug/L	0.072	
3-Nitrotoluene	NI)	0.40	ug/L	0.062	
4-Nitrotoluene	NIX	0.50	ug/L	0.072	
RDX	ND	0.10	ug/L	0.065	
Tetryl	NI)	0.10	ug/L	0.050	
1,3,5-Trinitrobenzene	0_036 JrB	0.10\)	ug/L	0.031	
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024	
	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS			
3,4-Dinitrotoluene	104	(79 - 113	1.)		

NOTE(S):



J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

TestAmerica Portland

Client Sample ID: PSF0784-02

HPLC

SILM OUEW

Lot-Sample #...: G9F260326-002 Work Order #...: LFQAL1AC Matrix..... WATER

Date Sampled...: 06/24/09 Date Received..: 06/26/09 Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1 Method.....: SW846 8330

		REPORTING	3	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	MD	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-	NI	0.20	ug/L	0.10
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4~Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
нмх	NI)	0.10	ug/L	0.027
Nitrobenzene	NI)	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.072
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	NL)	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	0.033 J.B	0.10	ug/L	0.031
2,4,6~Trinitrotoluene	ND	0.10	ug/L	0.024
	DYID CIDATII	***********		
GYYOD OG YED	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	105	(79 - 111	.)	

NOTE(S):



J Estimated result. Result is less than RL

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

TestAmerica Portland

Client Sample ID: PSF0784-03

DONOW MOUSE

IPLC

Lot-Sample #: G9F260326-003 Work Order	#: LFOAMLAC	Matrix:	WATER
--	-------------	---------	-------

Date Sampled...: 06/24/09 Date Received..: 06/26/09 Prep Date....: 07/01/09 Axalysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 0.99 Method.....: SW846 8330

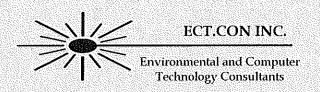
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.99	ug/L	0.12
2-Amino-4,6-	ND	0.20	ug/L	0.099
dinitrotoluene				
4-Amino-2,6-	ND	0.099	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.099	ug/L	0.050
2,4-Dinitrotoluene	ND	0.099	ug/L	0.050
2,6-Dinitrotoluene	ND	0.099	ug/L	0.050
НМХ	ND	0.099	ug/L	0.027
Nitrobenzene	ND	0.099	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.071
3-Nitrotoluene	ND	0.40	ug/L	0.061
4-Nitrotoluene	ND	0.50	ug/L	0.071
RDX	ND	0.099	ug/L	0.064
Tetryl	ND	0.099	ug/L	0.050
1,3,5-Trinitrobenzene	0_035_J,B	0.099()	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.099	ug/L	0.024
	DVD ADVÆ	DEGOTIFIES.		
arynn o as me	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	106	(79 - 111)		

NOTE(S):



J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.



Support Documentation

Laboratory Case Narrative



DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc. James D. Peyton 5261 Fountain Drive, Suite A Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater Client Project Number: 110002 Task 6200

TA Work Order#: PSF0784

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

139

July 31, 2009

> 305 between columno for sangle results > full dups

TestAmerica - Portland 9405 S. W. Nimbus Avenue Beaverton, Oregon 97008 (503) 906-9200 (503) 906-9210



CASE NARRATIVE

Client:

Michael Baker Jr., Inc.

110002 Task 6200

Date Sampled:

6/24/2009

Project:

Camp Bonneville Groundwater

Date Received:

6/24/2009

Lab:

PSF0784

SAMPLE RECEIPT:

Samples were received intact, on ice, with chain of custody

documentation. The sample temperature was measured at 4.6 °C upon

receipt at the laboratory.

HOLDING TIMES:

All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED:

No problems were encountered.

QA/QC CRITERIA:

1,2,3-Trichlorobenzene was detected at a concentration less than the MRL but greater than one-half of the MRL in the associated Method Blank for EPA 8260B samples PSF0784-01, PSF0784-02, PSF0784-03,

and PSF0784-04.

OBSERVATIONS:

No significant observations were made.

SUBCONTRACTED:

314.0_9196313 (Perchlorate) and SW846 8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is included in this data deliverables package as

Appendix A.

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

TestAmerica Portland

Estella Rieben Project Manager

Page 1



THE LEADER IN ENVIRONMENTAL TESTING

Michael Baker Jr., Inc.

5261 Fountain Drive, Suite A Crown Point, IN 46307

PORTLAND, OR 9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

Camp Bonneville Groundwater Project Name:

> 110002 Task 6200 Report Created: Project Number: Project Manager: James D. Peyton 07/21/09 08:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23LCMW04DW	PSF0784-01	Water	06/24/09 13:00	06/24/09 17:30
23LCMW04SW	PSF0784-02	Water	06/24/09 15:45	06/24/09 17:30
23LCMW0460W	PSF0784-03	Water	06/24/09 11:00	06/24/09 17:30
TB261	PSF0784-04	Water	06/24/09 00:00	06/24/09 17:30

TestAmerica Portland

Estella Rieben, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



July 28, 2009

TestAmerica Project Number: G9F260326

PO/Contract: PSF0784

Estella Rieben TestAmerica Portland Nimbus Corporate Center 9405 SW Nimbus Ave Beaverton, OR 97008

Dear Ms. Rieben,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on June 26, 2009. These samples are associated with your Michael Baker Jr., Inc. project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,

Linda C. Laver Project Manager

Hinda C Fairei

Case Narrative

TestAmerica West Sacramento Project Number G9F260326

WATER, 8330, Nitroaromatics & Nitramines

Samples: 1, 2, 3

The laboratory control sample (LCS) associated with this extraction batch has percent recoveries for most analytes above the established control limits indicating a potential high bias in the data. These samples do not have detected concentrations above the reporting limit for these analytes and there is no adverse impact upon the data.

The matrix spike/matrix spike duplicate (MS/MSD) associated with this extraction batch also has recoveries and/or precision is outside the established control limits for many analytes. This anomaly is most likely matrix related.

There are no other anomalies associated with this project.

Sample Summary

TestAmerica West Sacramento Project Number G9F260326

<u>WO#</u>	Sample #	Client Sample ID	Sampling Date	Received Date
ĹFQĂK	1	PSF0784-01	6/24/2009 01:00 PM	6/26/2009 09:00 AM
LFQAL	2	PSF0784-02	6/24/2009 03:45 PM	6/26/2009 09:00 AM
LFQAM	3	PSF0784-03	6/24/2009 11:00 AM	6/26/2009 09:00 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Chain of Custody

FestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Kuite 499, Bothell, WA 98011 8244 1922 L. Fric We, Spekane, WA 9929 8 592 9408 SW Nindon Ave Benyeron OR 97808/2143

225-220 0200 1-VV 420-9210 Son 124-0200 1-VV 421 0200 803-040-0-200 1-VV 400-0² 02 Best & Jacon Good, Ang or Bill So. S. C. Mandaga, Ask Prefer

24 C 2 C 4 A BONIMBER INCCC C 7 C CO C C C C C C C C C C C C C C	-	CHAIN OF	CHAIN OF CUSTODY REPORT	Work Order #: PSFO 784
HCL N/A NiA NiA REGUESTED ANALYSIS REQUESTED ANALYSIS X X X X X X X X X X X X X X X X X X	System Stay LOK	INVOICE TO:		TURNAROUND REQUEST in Besiness Days
HCL N/A NiA RECUESTED ANALYSES X X X X X X X X X X X X X X X X X X X	A A TO MOTERAL MARKET AND THE PARTY AND THE			Organic at Bong on Analysis
HCL N/A	265 FAX: 319 765 1 323	P.O. NUMBER:	1	Petroleum Hydrox myn Arabov
39 - 13:00 X X X X X X X X X X X X X X X X X X	Brune Ile	100	PRESERVATIVE	
Sq - 13:00 X X X X X X X X X X X X X X X X X X	CONT COC	₫/N]]]
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FIRM: Baker Clark of Received BY REGENED BY FORTH TIME OF THE OF	001/- \$0175/Johnson	XXXX		
FIRM: DATE: 6/34/09 RECEIVED BY: A THE COLOR TIME: 6/2/5 RECEIVED BY: A THE COLOR STATE OF THE COLOR STATE O	, V/V	>		
FIRM: BALEY TIME: 63409 WECENED BY: LEGING B				
FRM: BYEN DATE: 6/34/09 RECEIVED BY: PRINT NAME: 17:35 PRINT NAME: 2007 STREET FIRM: 74 PRINT NAME: 2007 STREET FIRM:				
FIRM: BOXTE: 6/34/09 RECEIVED BY: CONTENT TIME: 73.35 PRINT NAME: 260/35/09/10/10/10/10/10/10/10/10/10/10/10/10/10/				
FIRM: DATE: 6/34/09 RECEIVED BY: BY TIME: 10 DATE: 6/34/09 RECEIVED BY: THE TIME: 11 TIME: 17:35 PRINT NAME: 250/25/25/2011 FIRM: TAF TIME: 17:35 PRINT NAME: 250/25/25/25/25/25/25/25/25/25/25/25/25/25/				
FIRM: DATE: 6/34/09 RECEIVED BY: BY TIME: 1 TI				
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	,			- Avge

TestAmerica Portland Sample Receiving Checklist

	k Ord nt Na		nd Project: Michael Baker	6/24/	09 Mp	1730 Bonneville		
	Zone: DT/ES		□CDT/CST □MDT/MST □PDT/PST	□ak	□OТ:	HER		
Co	oler #(eratur	(s): es:	Digi #2 IR Gun Comparison	Тетр	Not Ice N	re out of Range: enough or No Ice Melted 4 Hrs of collection er:		
N/A	Yes	No				Initials: 🔨		
\square			1. If ESI client, were temp blanks received? If no, do	cument o	n NOD	•		
\square			2. Cooler Seals intact? (N/A if hand delivered) if no,	documen	t on NO	DD.		
	\square		3. Chain of Custody present? If no, document on NO	D.				
			4. Bottles received intact? If no, document on NOD.					
	\square		5. Sample is not multiphasic? If no, document on NOD.					
	1		6. Proper Container and preservatives used? If no, do	ocument (on NOE).		
\square			7. pH of all samples checked and meet requirements?	If no, d	ocumen	t on NOD.		
\square			8. Cyanide samples checked for sulfides and meet req	quiremen	ts? If n	o, notify PM.		
			9. HF Dilution required?					
	Ø		10. Sufficient volume provided for all analysis? If no PM before proceeding.	, docume	ent on N	IOD and consult		
	Ø		11. Did chain of custody agree with samples received	? If no, o	docume	nt on NOD.		
			12. Is the "Sampled by" section of the COC completed	1?				
			13. Were VOA/Oil Syringe samples without headspace					
	Ø		14. Were VOA vials preserved? ☐HCI ☐Sodium Th	hiosulfate	Asc	corbic Acid		
,			15. Did samples require preservation with sodium thio	sulfate?				
			16. If yes to #14, was the residual chlorine test negative	_				
Ø			17. Are dissolved/field filtered metals bottles sedimen	it-free? I	f no, do	cument on NOD.		
0 0			18. Is sufficient volume provided for client requested no, document on NOD and contact PM before proceed 19. Are analyses with short holding times received in	ling.	or ma	trix duplicates? If		
			20. Was Standard Turn Around (TAT) requested?	•				
	ā		21. Receipt date(s) < 48 hours past the collection date(s)? If no	, notify	PM.		

TestAmerica Portland Sample Receiving Checklist

Work Order #: **PSF0784**

Log	in Ch	ecks: Initials: P5
N/A	Yes	No
	\mathbb{Z}	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM
\mathbb{Z}		23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If
		no, document on NOD and contact PM.
		24. Did the chain of custody include "received by" and "relinquished by" signatures,
		dates and times?
Z)		25. Were special log in instructions read and followed?
	Ø	26. Were tests logged checked against the COC?
Ø		27. Were rush notices printed and delivered?
Ø		28. Were short hold notices printed and delivered?
	ot Z	29. Were subcontract COCs printed?
Ø		30. Was HF dilution logged?
Lab	eling	and Storage Checks: Initials: 15
$N_{\ell}A$	Yes	No
Ø		31. Were the subcontracted samples/containers put in Sx fridge?
Z Z		32. Were sample bottles and COC double checked for dissolved/filtered metals?
/	Ø	33. Did the sample ID, Date, and Time from label match what was logged?
Z		34. Were Foreign sample stickers affixed to each container and containers stored in
		foreign fridge?
Ø		35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
Ø		36. Was an NOD for created for noted discrepancies and placed in folder?
Docur form (nent at NOD)	ry problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy



LOT RECEIPT CHECKLIST TestAmerica West Sacramento

CLIENT	THE - P	orthad	PM LL	LOG#	77227
		60326 QI			
DATE RECEIVED	6/26/69	_ TIME RECEIVED	<u>6 %v3</u>	Initials	Date 6/26/09
DELIVERED BY	☐ AIRBORNE ☐ UPS	CA OVERNIGHT GOLDENSTATE BAX GLOBAL VALLEY LOGISTIC	☐ DHI. ☐ GO-GETTERS	l l	
CUSTODY SEAL STA					
CUSTODY SEAL #(S) SHIPPPING CONTAIN TEMPERTURE RECO COC #(S) TEMPERATURE BLA SAMPLE TEMPERAT Observed:	NER(S) TAL ORD (IN °C) IR NK Observ URE Averag	CLIENT 4 5 5 0 0 Ped: Corrected 6. 5 Corrected fied from COC N	N/A OTHER ected: d Average:		
pH MEASURED	☐ YES	S ANOMAL	Y ZNA		
LABELED BY LABELS CHECKED B' PEER REVIEW					
SHORT HOLD TEST I	VOTIFICATION	WET	PLE RECEIVING CHEM IN/A ENCORES N/A		
☐ METALS NOTIFIED	OF FILTER/PRESE	RVE VIA VERBAL & E	MAIL N/A		
COMPLETE SHIPM APPROPRIATE TE	MPERATURES, CON	GOOD CONDITION W TAINERS, PRESERV URE EXCEEDED (2 °C	ATIVES		
WET ICE Notes:		☐ GEL PACK ☐ NO		USED [] PN	NOTIFIED

^{*1} Acceptable temperature range for State of Wisconsın samples is≤4°C

Worksheets

HOLDING TIMES

			Sacramento Lab			
SAMPLE DATE	SAMPLE ID	Portland LAB ID	ID	Matrix	Prep	Anal
06/24/09	23LCMW04DW	PSF0784-01	LFQAK	Aq	07/01/09	7/2/09 LX
06/24/09	23LCMW04SW	PSF0784-02	LFQAL	Aq	07/01/09	7/2/09 IX
06/24/09	23LCMW0460W	PSF0784-03	LFQAM	Aq	07/01/09	7/2/09 1X

days from collection to extraction

Sample Date

6/24/2009

7/1/2009

40

Sample Date

days fromextraction to analysis 7/1/2009

Extract By Extract By

8/10/2009

TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client?

Did Sample Form 1s match the target compound list

Were required quantitation limits provided by the client? Did all compounds meet the required quantitation limits? No

NA No

NA

SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN I	DF	ACTION
All IN				

Were surrogate RTs within windows established by the ICAL?

Were there any transcription errors between the raw data and Form 2? Were laboratory acceptance limits used as the basis for validation?

Yes No

30-150

Did the laboratory provide CLP Form II or equivlaent?

Yes

04DW

		AMOUNT		
SURR	AMOUNT FOUND	SPIKED	% R	F1
34-DNT A	2,607	2,5	104.3	104
34-DNT C	NA		#VALUE!	

MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

Non-Client

LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION
LFW791	12 of 17 HI		NA	NA	none ND

Were laboratory acceptance limits used as the basis for validation?

Did the laboratory provide CLP Form III or equivlaent?

Yes

Were chromatograms and quan reports present for all LCS/LCDs?

Yes Yes

LFW791 RDX

			AMOUNT		ĺ					
1	2 of 17 HI	AMOUNT FOUND	SPIKED	% R	FORM 3					
	LCS	1.27	l l	127.0	127					
	h— · · · · · · · · · · · · · · · · · · ·									

[%]R = (Amount Found/Amount Spiked)*100

BLANKS

BLANK	COMPOUND	RESULT	5X 0R 10X	ACTION LEVEL	ACTION
LFW791	135-TNBENZ	0.038	5	0.19	U at RL

ALL

NOTE

Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

	CAL	IBRATION			
nitial					
	quan reports present for all ICAL standards?			Yes	
	valent present and complete?			Yes	
iny transcription or calci	ulation errors?			No	
Vhat linearity criteria wa	is used?			20% RSD or 0.99	
Vere RT window docum	ented?			Yes	
Continuing					
re chromatograms and o	quan reports present for all CCV standards?			Yes	
re CLP Form VIIs or co	mivalent present and complete?			Yes	
my transcription or calcu				No	
/hat %D criteria was use	ed?			25% D	
ave all samples and star	idards been listed on an Analytical Sequence?			Yes	
'as a proper analytical s				Yes	
NITIAL CALIBRATIO	DN - A				
ate	6/10/2009	Rptd Avg CF	77,89163	Rptd %RSD	5.156
	A	Calcd Avg CF	77,892	Cald %RSD	5.156
strument		Caica Avg Cr	11,892	Caid 76KSD	3.130
ompound	RDX	OF.	***	arn nett	
eported CF	80.13	CF1	81.80	STD DEV	4
alculated CF	80.42	CF2	75.90		
		CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
		CF6	80.13		
	CF = (H/C)	CF7	69.168	%RSD = (Std Dev/	4vg CF)*100
A		CF8	79.815		
ONTINUING CALIBI	CATION A				
ate	7/2/2009				
me	1709				
strument	Α				
ompound	HMX				
eported Conc	104.5	Rptd %D	5		
alculated Conc	210.182	Cald %D	-5.09		
			2.07		
Response	25432	ICAL CF	200		
CF	121	CCV CF	210,2		
	CF := (H/C)	%Difference = ((i	ICAL - CCV)/ICA	I.)*100	
	FIELD I	DUPLICATES			
COMPOUND	SAMPLE QUALIFIER	DUPLICATE	QUALIFIER	RPD	
Comi Cont	DAMI GO QUALITIER		ZOMERTER	NI D	
PCA				#DIV/0!	
NOTES	Samples are not qualified on this basis.				
	COMPOUND IDENTIFIC	ATION AND QUAN	TITATION		
s a F10 been completed	for every sample containing positive results?			Yes	
as RT data presented on				NA	
e RTs within the establis				Yes	
y transcription or calcul				No	
•	ve peaks, shouldering, etc.?			No	
	needed for results > 10 µg/ml?			NA	
	or relative percent differences calculated?			NA.	
e percent differences/Rf				NA	
e there any transcription				No	
	field and quality control samples?			No	
	netti and quatty Control samples? ian reports present for all samples?			Yes	
z savamatugiams ard m				Yes	
	t sample dilutions, percent solids, etc.?				
e RLs adjusted to reflect				No No	
e RLs adjusted to reflect r soils, any precent solid				170	
e RLs adjusted to reflect	ls < 10%?				
e RLs adjusted to reflect r soils, any precent solid					
e RLs adjusted to reflect r soils, any precent solid r soils, any precent solid S RDX 1.27 µg/L	А				
e RLs adjusted to reflect r soils, any precent solid r soils, any precent solid S RDX 1.27 µg/L response	A 4962				
e RLs adjusted to reflect r soils, any precent solid r soils, any precent solid S RDX 1.27 µg/L response of	A 4962 77.89163				
e RLs adjusted to reflect r soils, any precent solid r soils, any precent solid S RDX 1.27 µg/L response of final vol ml	A 4962 77.89163 20				
e RLs adjusted to reflect r soils, any precent solid r soils, any precent solid S RDX 1.27 µg/L response of final vol ml initial L	A 4962 77.89163 20 I				
e RLs adjusted to reflect r soils, any precent solid r soils, any precent solid S RDX 1.27 µg/L response of final vol ml	A 4962 77.89163 20				
e RLs adjusted to reflect r soils, any precent solid r soils, any precent solid S RDX 1.27 µg/L response of final vol ml initial L	A 4962 77.89163 20 I				
e RLs adjusted to reflect r soils, any precent solid	ls < 10%?				

A-000006.D

Chromatography Summary

Injection Date:

7/2/2009 19:40

Operator: fik

DataFile:

LC10 I\07022009 B\A-000006 D

Vial Num: 13

Method 8330 Target Analyte Results

Instrument ID:

I,C10

Sample:

Matrix

LFQAK1AC 9182192 G9F260326-1 1X Method Pile:

SpikeListe

LC10.1\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47 Sample Weight Dilution Factor Extract Volume Sample Volume

20 mL 997.78 mL

Samp. Info:

WATER

SubList: WATER sub LFQAKIAC 9182192 G9F260326-1 1X,0,

1X

0 g

Mise. Info:

;,997 78,,20.1,WATER sub,;0;1,LFQAKIAC

Signal I UV 25	0-205				Signal 2 UV 350	5-205
Response	Cone (ug/L)	Flag	RT	Diff	Response	Con
1,1						

Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.001	6135	2,6070<		18.24	-0.006	11892	2,7570		0.0000	0.00	
HMX				V	/						0 0271	0 10	
RDX											0.0651	0.10	
Piene ACID											0 1253	1.00	
1,3,5-Trinitrobenzene	10 14	-0 086	264	0 0359<							0.0311	0.10	45
1,3-Dmitrobenzene											0.0501	010	
TETRYL											0.0501	0.10	
Nttrobenzene											0 0501	0.10	
2,4,6-l'ranitrotoluene											0 0241	0.10	
4-AM-2,6-DNT											0.0220	0.10	
2-AM-4.6-IDNT											0 1002	0.20	
2,6-Dinitrotoluene											0.0501	010	
2,4-Dmitrotoluene											0 0501	0.10	
2-Nitrotoluene											0 0722	0.50	
4-Nitrotoluene											0 0722	0.50	
3-Narotoluene											0 0621	0 50	
Nitroglycerin											0.3307	0 65	
PETN											0 3007	0 65	
3,5-Dinitroaniline											0 0251	1.00	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3.4-Dinitrotoluene	2,5056	2.6070	104	2,5056	2.7570	110	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/7/2009 10:32 AM

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFV9K1AF-MS Matrix..... WATER

MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192 Dilution Factor: 0.98

	PERCENT	RECOVERY		RPD	
PARAMETER	RECOVERY	LIMITS	RPD	LIMITS	METHOD
Nitroglycerin	106	(85 - 115)			SW846 8330
	108	(85 - 115)	2.0	(0-15)	SW846 8330
PETN	110	(84 - 117)			SW846 8330
	111	(84 - 117)	0.90	(0-15)	SW846 8330
Picric Acid	70	(21 - 118)			SW846 8330
	99 p	(21 - 118)	35	(0-20)	SW846 8330
2-Amino-4,6-	125 a	(77 - 123)			SW846 8330
dinitrotoluene					
	129 a	(77 - 123)	3.4	(0-27)	SW846 8330
4-Amino-2,6-	116 a	(68 - 113)			SW846 8330
dinitrotoluene					
	120 a	(68 - 113)	3.0	(0-30)	SW846 8330
1,3-Dinitrobenzene	125 a	(72 - 123)			SW846 8330
•	130 a	(72 - 123)	4.1	(0-29)	SW846 8330
2,4-Dinitrotoluene	120 a	(70 - 119)			SW846 8330
•	124 a	(70 - 119)	2.9	(0-30)	SW846 8330
2,6-Dinitrotoluene	122 a	(71 - 119)			SW846 8330
• • • • • • • • • •	125 a	(71 - 119)	2.9	(0-29)	SW846 8330
нмх	118 a	(67 - 115)			SW846 8330
	120 a	(67 - 115)	J 4	(0-32)	SW846 8330
Nitrobenzene	121 a	(69 - 119)			SW846 8330
	124 a	(69 - 119)	2.5	(0-31)	SW846 8330
2-Nitrotoluene	1.1.7	(64 - 120)			SW846 8330
	113	(64 - 120)	2.7	(0-36)	SW846 8330
3-Nitrotoluene	1.13	(67 - 114)			SW846 8330
	11.5 a	(67 - 114)	2.0	(0-31)	SW846 8330
4-Nitrotoluene	114	(67 - 115)			SW846 8330
	116 a	(67 - 115)	2.3	(0-32)	SW846 8330
RDX	1.21	(68 - 122)			SW846 8330
	129 a	(68 - 122)	6.3	(0-32)	SW846 8330
Tetryl	102	(66 - 105)			SW846 8330
•	106 a	(66 - 105)	4.2	(0-26)	SW846 8330
1,3,5-Trinitrobenzene	1.1.9	(74 - 120)			SW846 8330
	124 a	(74 - 120)	4.3	(0-29)	SW846 8330
2,4,6-Trinitrotoluene	113 a	(69 - 111)			SW846 8330
	117 a	(69 - 111)	3.4	(0-28)	SW846 8330

(Continued on next page)

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F260326

Work Order #...: LFV9KlAF-MS

Matrix..... WATER

MS Lot-Sample #: G9F300242-004

LFV9K1AG-MSD

SURROGATE RECOVERY
3,4-Dinitrotoluene 104
107

(79 - 111) (79 - 111)

RECOVERY LIMITS

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

p Relative percent difference (RPD) is outside stated control limits

a Spiked analyte recovery is outside stated control limits

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFV9K1AF-MS Matrix..... WATER

MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192 Dilution Factor: 0.98

	SAMPLE	SPIKE	MEASRD		PERCNT			
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHO	
Nitroglycerin	ND	4.91	5.19	ug/L	106		SW846	8330
	ND	4.92	5.29	ug/L	108	2.0	SW846	8330
PETN	ND	4.91	5.41	ug/L	110		SW846	8330
	ND	4.92	5.46	ug/L	111	0.90	SW846	8330
Picric Acid	ND	4.91	3.41	ug/L	70		SW846	8330
	ND	4.92	4.85	ug/L	99 p	35	SW846	8330
2-Amino-4,6-	ND	0.982	1.22	ug/L	125 a		SW846	8330
dinitrotoluene								
	ND	0.983	1.26	ug/L	129 a	3.4	SW846	8330
4-Amino-2,6- dinitrotoluene	ND	0.982	1.14	ug/L	116 a		SW846	8330
dinrelocoldene	ND	0.983	1.18	ug/L	120 a	3.0	SW846	8330
1,3-Dinitrobenzene	ND	0.982	1.23	ug/L	125 a		SW846	8330
	ND	0.983	1.28	ug/L	130 a	4.1	SW846	8330
2,4-Dinitrotoluene	ND	0.982	1.18	ug/L	120 a		SW846	8330
	ND	0.983	1.22	ug/L	124 a	2.9	SW846	8330
2,6-Dinitrotoluene	ND	0.982	1.19	ug/L	122 a		SW846	8330
	ND	0.983	1.23	ug/L	125 a	2.9	SW846	8330
НМХ	ND	0.982	1.16	ug/L	118 a		SW846	8330
	ND	0.983	1.18	ug/L	120 a	1.4	SW846	8330
Nitrobenzene	ND	0.982	1.19	ug/L	121 a		SW846	8330
	ND	0.983	1.22	ug/L	124 a	2.5	SW846	8330
2-Nitrotoluene	ND	0.982	1.14	ug/L	117		SW846	8330
	ND	0.983	1.11	ug/L	113	2.7	SW846	8330
3-Nitrotoluene	ND	0.982	1.11	ug/L	1.1.3		SW846	
	ND	0.983	1.14	ug/L	115 a	2.0	SW846	8330
4-Nitrotoluene	ND	0.982	1.12	ug/L	1.1.4		SW846	8330
	ND	0.983	1.14	ug/L	116 a	2.3	SW846	8330
RDX	ND	0.982	1.19	ug/L	121		SW846	8330
	ND	0.983	1.27	ug/L	129 a	6.3	SW846	8330
Tetryl	ND	0.982	0.998	ug/L	102		SW846	8330
-	ND	0.983	1.04	ug/L	106 а	4.2	SW846	8330
1,3,5-Trinitrobenzene	0.035	0.982	1.20	ug/L	119		SW846	8330
	0.035	0.983	1.26	ug/L	124 a	4.3	SW846	8330
2,4,6-Trinitrotoluene	ND	0.982	1.11	ug/L	113 a		SW846	8330
	ND	0.983	1.15	ug/L		3.4	SW846	8330

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F260326

Work Order #...: LFV9K1AF-MS

Matrix..... WATER

MS Lot-Sample #: G9F300242-004

LFV9K1AG-MSD

	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
3,4-Dinitrotoluene	104	(79 - 111)
	107	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

- p Relative percent difference (RPD) is outside stated control limits.
- a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFW791AC Matrix..... WATER

LCS Lot-Sample#: G9G010000-192

Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1

	PERCENT	RECOVERY	
PARAMETER	RECOVERY	LIMITS	METHOD
Nitroglycerin	107	(85 - 115)	SW846 8330
PRIN	110	(84 - 117)	SW846 8330
Picric Acid	88	(21 - 118)	SW846 8330
2-Amino-4,6-	127 a	(77 - 123)	SW846 8330
dinitrotoluene			
4-Amino-2,6-	119 a	(68 ~ 113)	SW846 8330
dinitrotoluene			
1,3-Dinitrobenzene	128 a	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	123 a	(70 ~ 119)	SW846 8330
2,6-Dinitrotoluene	125 a	(71 - 119)	SW846 8330
нмх	120 a	(67 ~ 115)	SW846 8330
Nitrobenzene	124 a	(69 - 119)	SW846 8330
2-Nitrotoluene	115,	(64 - 120)	SW846 8330
3-Nitrotoluene	118 a	(67 - 114)	SW846 8330
4-Nitrotoluene	// 117 a \	(67 - 115)	SW846 8330
RDX	(127 a	(68 - 122)	SW846 8330
Tetryl	105	(66 - 105)	SW846 8330
1,3,5-Trinitrobenzene	127 a	(74 ~ 120)	SW846 8330
2,4,6-Trinitrotoluene	(116 a	(69 - 111)	SW846 8330
	The same of the sa		
		PERCENT	RECOVERY
SURROGATE		RECOVERY	LIMITS
3,4-Dinitrotoluene		106	(79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFW791AC Matrix..... WATER

LCS Lot-Sample#: G9G010000-192

Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
Nitroglycerin	5.00	5.35	ug/L	1.07	SW846 8330
PRIN	5.00	5.52	ug/L	1,10	SW846 8330
Picric Acid	5.00	4.42	ug/L	88	SW846 8330
2-Amino-4,6-	1.00	1.27 a	սց/L	127	SW846 8330
dinitrotoluene					
4-Amino-2,6-	1.00	1.19 a	ug/L	119	SW846 8330
dinitrotoluene					
1,3-Dinitrobenzene	1.00	1.28 a	ug/L	128	SW846 8330
2,4-Dinitrotoluene	1.00	1.23 a	ug/L	123	SW846 8330
2,6-Dinitrotoluene	1.00	1.25 a	ug/L	125	SW846 8330
HMX	1.00	1.20 a	ug/L	120	SW846 8330
Nitrobenzene	1.00	1.24 a	ug/L	124	SW846 8330
2-Nitrotoluene	1.00	1.15	ug/L	1.1.5	SW846 8330
3-Nitrotoluene	1.00	1.18 a	ug/L	118	SW846 8330
4-Nitrotoluene	1.00	1.17 a	ug/L	117	SW846 8330
ROX	1.00	1.27 a	ug/L	127	SW846 8330
Tetryl	1.00	1.05	ug/L	105	SW846 8330
1,3,5-Trinitrobenzene	1.00	1.27 a	ug/L	127	SW846 8330
2,4,6-Trinitrotoluene	1.00	1,16 a	ug/L	116	SW846 8330
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS		
3,4-Dinitrotoluene		106	(79 - 111)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.

A-000005.D

Chromatography Summary

WATER

Injection Date: DataFile:

7/2/2009 18:50

Operator: fik

WATER spk

LC10 I\07022009 B\A-000005.D

Vial Num: 12

Method 8330 Target Analyte Results

Instrument ID:

LC10

Sample:

Matrix:

LFW791AC 9182192 G9G010000-192 C 1X.

SpikeList:

Method File:

LC101\07022009 B\8330AB M

Start Cal Date:	6/10/2009 15 33	End Cal Date:	6/11/2009 13 47		
Dilution Factor	Extract Volume	Sample Volume	Sample Weight		
17	20 T	1000 1	Λ.,		

Samp. Info:

Sublist: WATER sub

LFW791AC 9182192 G9G010000-192 C 1X:3;

Misc. Info:

LCS.,1000,,20;1-WATER sub;WATER spk,1,1,LFW791AC

			Signal I U	JV 250-2	55					Signal 2 UV	358-205					
Compound Name	RT	Response	Conc (ug/L)	Spike Level	%R	Result	Flag	RT	Response	Cone (ug/L)	Spike Level	%R	Result	Flag	Limits(%)	Flag
3,4-1>initrotoluene	18 23	6246	2 6480<	25	106%	Acceptable		18.23	12082	2.7950	2.5	112%	Fails		(79-111)	
HMX	5.30	7265	1.2020<	1	120%	Fails					1	0%	Fails		(65-115)	45
RDX	7.88	4962	1.2740<	1	127%	Fails					1	0%	Fails		(68-122)	45
Piene ACID	9.06	18341	4,4320	5	89%	Acceptable		9 06	26909	4.4230<	5	88%	Acceptable		(21-118)	
1,3,5-Trinitrobenzene	10.23	9382	1.2710<	1	127%	Fails					1	0%	Fails		(74-120)	45
1,3-Dinitrobenzene	13.30	8977	1.2850<	1	129%	Fails					1	0%	Fails		(72-123)	45
TETRYL	14 35	4859	1 0470<	1	105%	Acceptable					1	0%	Fails		(66-105)	45
Nitrobenzene	15.23	3778	1.2450<	1	125%	Fails					1	0%	Fails		(69-119)	45
2,4.6-Trinitrotoluene	16.58	5089	1.1600<	1	116%	Fails					1	0%	Fails		(69-111)	45
4-AM-2,6-DNT	17.60	3716	1.1930<	1	119%	Fails					1	0%	Fails		(68-113)	45
2-AM-4,6-DNT	18.66	4662	1.2680<	1	127%	Fails					1	0%	Fails		(77-123)	45
2,6-Dinitrotoluene	20.39	3326	1.2490<	1	125%	Fails					1	0%	Fails		(71-119)	45
2,4-Dinitrotoluene	21.10	5280	1.2330<	1	123%	Fails					1	0%	Fails		(70-119)	45
2-Nitrotoluene	24.82	2061	1 1470<	1	115%	Acceptable					1	0%	Fails		(64-120)	45
4-Nitrotoluene	26.68	2553	1.1660<	1	117%	Fails					1	0%	Fails		(67-115)	45
3-Nitrotoluene	28.69	2534	1.1750<	1	118%	Fails					1	0%	Fails	,	(67-114)	45
Nitroglycerin				5	0%	Fails		15 84	1 62 62	5 3460<	5	107%	Acceptable		(85-115)	45
PETN				5	0%	Fails		3025	8838	5 5150<	5	110%	Ассернавле	,	(84-117)	45
3,5-Dinitroaniline	14.04	5620	1.2490<	1	125%	Acceptable					1	0%	Fails		(40-140)	45

	· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·		
Surrogates:	Splked	Recovered	% Rec	Spiked Spiked	Recovered	% Rec	Limits
1: 1: :::::::::::::::::::::::::::::::::		· · · · · · · · · · · · · · · · · · ·					
3,4-Dinitrotaluene	2,5000	2.6480	106	2.5000	2.7950	112	(79-111)

Notes:

M = Manually Integrated

D = Operator Disabled Result

Signals Differ by More Than 50%

Signals Differ by More Than 40%

O = Over Calibration Range

Data File: \\Terastation\share\GCdata\LC10.I\07022009.B\A-000005.D Page 1 Report Date: 02-Jul-2009 19:36

Test America West Sacramento

Method 8330

Data file: \\Terastation\share\GCdata\LC10.I\07022009.B\A-000005.D

Lab Smp Id: LFW791AC 9182192 G9 Inj Date : 02-JUL-2009 18:50

Inst ID: LC10.i

Misc Info : LCS;;1000;;20;1;WATER.sub;WATER.spk;1;1;LFW791AC

Comment : SOP SAC-LC-0009

Method : \Terastation\share\GCdata\LC10.I\07022009.B\8330AB.m

Meth Date : 02-Jul-2009 19:27 kenneyf Quant Type: AREA% Quant Type: AREA% Cal Date : 11-JUN-2009 13:47 Cal File: A-000015.d

Als bottle: 12 QC Sample: LCS

Dil Factor: 1.00000 Integrator: Falcon+

Compound Sublist: WATER.sub

Target Version: 4.14

Processing Host: SACP307HPLC

Concentration Formula: Amt * DF * Uf*Vt / Vo * CpndVariable

Name	Value	Description
DF Uf Vt Vo Cpnd Variable	1.000 20.000	Dilution Factor ng unit correction factor Volume of final extract (mL) Volume of sample extracted (mL) Local Compound Variable

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COM	POUNDS
======	******	=======================================	****	=======	====:	
5.298	44338	7265	0.164	7.31		2 HMX
7.878	52369	4962	0.095	4.99		B RDX
9.061	240427	18341	0.076	18.58	į	Ficric ACID
10.228	121534	9382	0.077	9.44		1,3,5-Trinitrobenz
11,635	533	49	0.092	0.04		, .
12.105	7464	514	0.069	0.51		
12.778	132	46	0.347	0.04		
13.301	143585	8977	0.063	9.04	-	1,3-Dinitrobenzene
14.045	89298	5620	0.063	5.66	3	
14.351	82373	4859	0.059	4.89	9	TETRYL
15.235	67423	3778	0.056	3.80	10	Nitrobenzene
16.585	95229	5089	0.053	5.12	12	2,4,6-Trinitrotolu
17,598	75159	3716	0.049	3.74		4-AM-2,6-DNT
18,235	122827	6246	0.051	6.29	\$ 1	
18.658	104810	4662	0.044	4.69	•	2-AM-4,6-DNT
20.395	74253	3326	0.045	3.34		2,6-Dinitrotoluene
21.105	1.2841.5	5280	0.041	5.31		2,4-Dinitrotoluene
23,125	284	28	0.099	0.02		,
24.825	56586	2061	0.036	2.07	17	2-Nitrotoluene
26.678	75508	2553	0.034	2.57		4-Nitrotoluene
28.688	80096	2534	0.032	2.55		3-Nitrotoluene
	========	=========		=======		
	1662642	99288		100.000		

METHOD BLANK REPORT

HPLC

Client Lot #...: G9F260326 Work Order #...: LFW791AA Matrix..... WATER

MB Lot-Sample #: G9G010000-192

Prep Date....: 07/01/09 Prep Batch #...: 9182192

REPORTING

Analysis Date..: 07/02/09

Dilution Factor: 1

PARAMETER	result	LIMIT	UNITS	METHÓD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-	ND	0.20	ug/L	SW846 8330
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	SW846 8330
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	0.039 J	0.10	ug/L	SW846 8330

0.10

ug/L

SW846 8330

	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
3,4-Dinitrotoluene	106	(79 - 111)

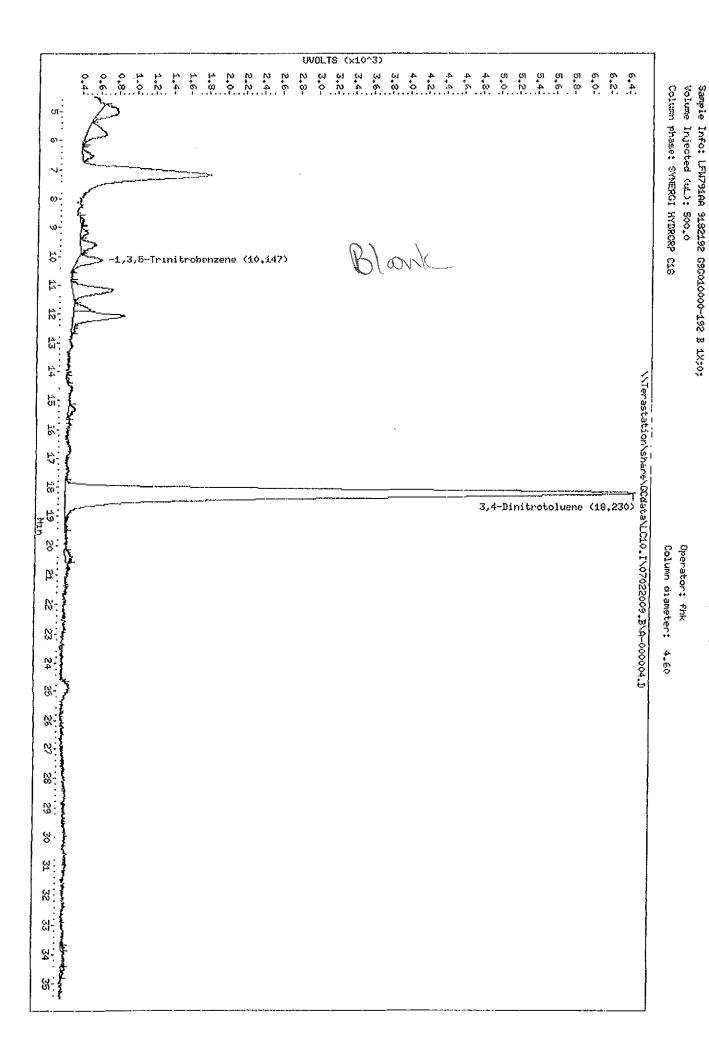
MD.

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results,

2,4,6-Trinitrotoluene

J Estimated result. Result is loss than RL



Page 2

Instrument; LC10.i

Client ID:

Date : 02-JUL-2009 18:00

Data File: \\Terastation\share\GCdata\LC10.I\07022009.B\A-000004.D

QC DATA ASSOCIATION SUMMARY

G9F260326

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9182192	9182194
002	WATER	SW846 8330		9182192	9182194
003	WATER	SW846 8330		9182192	9182194

TestAmerica West Sacramento ESC-Extraction Master Sheet

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																			s/Conc.		Sough, ,	50:01/201	ACID SOUGHMI	7		:
2/01/109	99																in imperation and the second	netion	STD Name/Conc.	707	3.5 DAIA S	713015	Wilnessed By / Date: No.	-) , care:		:
	1/02/09																	Standard Information	ПХр. 2 р	27/0/06/27	7/17/04/02/52/5/14/4 Se	11/109 NG 178 1/11/11	7//7/09 P			
	Date:																	otan	<u>0</u>			ĺ				
507EHz	- CC - C	Savitation C.															***************************************		or otto	09(2651)3	0966500037	0965500149	0961540039			
7/10/09 7/13/09	SOP No.: USSLC-CETEXTRACTION COMMENTS.																		Volume	Sari	l f		ンSy リー・マンル (Spiked By / Date: _		•	
	SOP No.:	1				-		1		T		1					-	9 T.	Codes	A11.	C, 2, D	C'S'D	Spiked	r Blank		
Project Due: Initiated By:	Difference in Mass	A Tribated	+				-							-									desired the second seco), FB = Filter Blank		•
3 4	Final Volume Final Mass	f Shee																						= LCSD, S = MS, D = SD		
7/1/09 7/02/09	Intital Mass	e weight																						rcsp, s=		
40/109	Sample	MB See	00	8	m :	8	3	٠٠-	N	-	ره (۲	3	7.	1725	(152	8				1	_			rcs, L =	2 A OT VII	FAIRAL
Due: 741 9182193 30-1		2	3 1		イラ - 0 - 10 - 10 - 10 - 10 - 10 - 10 - 10		,			42-01)	12 -03	Ü	42-04ms	カラーでか	42-0,			50/20					= MB, C =	A-449 EC	74-4 to E.O.
Holding Time Due: BATCH #: 91821 Test #: 8330-1	Lab ID		695260326	9F260326	59 F. 200 5 27.		2E270189	246270189	93101245	69F 300 242	750053B	646300242	びかで つろ しもひ	645300242	69F300242-64M5D	G9F300242			P 7/02					C Codes: B = MB, C = LCS, L	ON'ORMSNOA-447 ESC EXTENDADA 500	30 50 0 0
# 6 F	OC La	J	5	3		ণ্ড'	60	10	5 3	0	3	0	7	N .	0	3			1	-	- 			Ď.	Ö	\$
	<u> </u>	!	<u> 1</u>		P7/ollog			\$		1						1		!_		!		<u></u> -	ل ــــــــــــــــــــــــــــــــــــ			

† ტ ტტ	Grou			0099	- 676 (81	mento (9°	store Sacra	V soitemA	je9T		
Run Date: 7/02/0 Time: 11:49:3	Expanded Deliverable COC Completed Bench Sheet Copied Package Submitted to AnalyticalGrou Bench Sheet Copied per COC	: 7/01/09 9:00 : 7/02/09 10:40	(0	SURROGATE ID	5.0 50UL-09GCSV0172	5.0 50UL-09GCSV0172	5.0 50UL-09GCSV0172	5.0 50UL-09GCSV6172	5.0 50UL-09GCSV0172	5.0 50UL-09GCSV0172	5.0 50UL-09GCSV0172
	Expande COC Com Y Bench S Package	PREP DATE: COMP DATE:	Explosives (8330)	SOLVENTS EXTRACTION VOL EXCHANGE V	4.5 HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN
s, Inc. eksheer		** QC BATCH: 9182192	Nitroaromatics & Nitramines: Explosives SOLID PHASE EXTRACTION (NOMINAL)		A HOAC/ACN	A HOAC/ACN	A HOAC/ACN	a HOAC/ACM	a EOAC/ACN	a HOAC/ACN	na Hoac/acn
aboratories N BENCH WOF		**************************************	aromatics 8 PHASE EXTE	PH"S INIT ADDI ADJ2	an a	a na na	a na na	an an an	na na na	na na na	na na n
TestAmerica Laboratories, Inc. EXTRACTION BENCH WORKSHEET	natch		Nitro	INIT/FIN WI/VOL	997.78mL NA 20.00mL	991.12mL NA 20.00mL	1009.82mL NA 20.00mL	985.56mt X 20.00mL	999.12mL N 20.00mL	991.73mL N 20.00mL	996.78min M 20.00mL
	Weights/Volumes Spike & Surrogate Worksheet Vial contains correct volume bebels, greenbars, worksheets computer batch: correct & all randmalies to Extraction Method	l Phan		EXT MTH MATRIX	B7 A0 WATER	B7 A0 WATER	B7 A0 WATER	et no arter	B7 A0 WATER	B7 A0 WATER	B7 A0 WATER
RQC058	LEV LEV TEV TEV Weights/Vor Y Spike & Su	002448 Tuar	Reviewer/Date: PHANT / 7/02/09	EXTR ANL LOT#, MSRUN#/ TEST EXPR DUE WORK ORDER FLGS	7/01/09 7/10/09 LFQAK-1-AC COMMENTS:	G9F260326-002 7/01/09 7/10/09 LFQAL-1-AC COMMENTS:	7/01/09 7/10/09 LECAM-1-AC COMMENTS:	G9F270189-001 7/01/09 7/13/09 LFED6-1-AC COMMENTS:	G9F270189-002 7/02/09 7/13/09 LFRD7-1-AC COMMENTS:	7/02/09 7/13/09 LERD8-1-AC COMMENTS:	7/02/09 7/13/09 TFRDS-1-AC

Run Date: 7/0 Time: 11:4		7/01/09 9:00 7/02/09 10:40	SPIKE STANDARD/ SURROGATE ID	50UL-09GCSV0172	SOUL-09GCSV0172	SOUL-09GCSV0172	50UL-09GCSV0172	50UL-09GCSV0172	SEE BENCH SHEET SOUL-09GCSV0172	SEE BENCH SHEET SOUL-09GCSV0172	SOUL-09GCSV0172	Sour-09GCSV0172	SEE BENCH SHEET 50UL-09GCSV0172
		0/4 :	AS TOA	5.0	я. 90	5.0	5.0	5.0	5.0 50 50	0.0 0.0 0.0	5.0 50	5.0 50	5.0
		PREP DATE: COMP DATE:		.s HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN	4.5 HOAC/ACN	.5 HOAC/ACN	4.5 HOAC/ACN	.5 HOAC/ACN	5 HOAC/ACN
Inc. SHEET	*******************	* QC BATCH: 9182192 * * **********	SOLVENTS EXTRACTION VOL EXCHANGE	HOAC/ACN 4	HOAC/ACN 4	HOAC/ACN 4	HOAC/ACN 4	BOAC/ACN 4					
ries, WORKS	* * * *	BATCH: ******	ADJ2	A'N	MA	NA	MA	NA	NA	ď.	ą K	es S	NA
orato) SENCH	**	OC B2	PH"S ADJI	N.A	N.	N.	NA	ez E	Ą.	K.	NA	A.	MA
Labe	* *	* * *	TINI	MA	NA A	NA	MA	N.	N.A.	MA	4N	A.	ď.
TestAmerica Laboratories, Inc. EXTRACTION BENCH WORKSHEET			INIT/FIN WI/VOL	985.33mL 20.00mL	1014.4mL 20.00mL	975.28mL 20.00mL	1018.21mL 20.00mL	1028.11mL 20.00mL	1018.28mL 20.00mL	1017.3mL 20.00mL	1016.72mL 20.00mL	1000mL 20.00mL	1000mL 20.00mL
			MATRIX	WATER	Water	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
			EXT MTH	B7 A0	B7 A0	B7 A0	B7 A0	B7 A0					
ω			ANT. LOT#, MSRUN#/ TEST DUE WORK ORDER FLGS	G9F270189-005 7/13/09 LFREA-1-AC	G9F300242-001 7/14/09 LFV9A-1-AC	G9F300242-002 7/14/09 LFV9G-1-AC	G9F300242-003 7/14/09 LFV9J-1-AC	G9F300242-004 7/14/09 LFV9K-1-AC	G9F300242-004 7/14/09 LFV9K-1-AFS	G9F300242-004 7/14/09 LFV9K-1-AGD	G9F3C0242-005 7/14/09 LFV9M-1-AC	0/00/00 LFW79-1-AAB	0/00/00 LFW79-1-ACC
RQC058			EXTR	7/02/09 COMMENTS:	7/02/09 COMMENTS:	7/02/09 COMMENTS:	7/02/09 COMMENTS:	7/03/09 COMMENTS:	7/03/09 COMMENTS:	7/03/09 COMMENTS:	7/03/09 COMMENTS:	7/01/09 COMMENTS:	7/01/09 COMMENTS:

TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC10

Batch ID: 06102009

Method: Method 8330

Test : SOP SAC-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample	ID	File	ID [Vol	or [Extrac	t į	Diln	Comments
1	1	1	f	!		1	Wt	į	Vol	ł		1
axaustaazza=	******	2X2:======		****************	44444	.a 1175	04#F0		***====	거도의	****	14 x 11 11 11 11 11 11 11 11 11 11 11 11 1
10-JUN-2009	14:42	fhk	Blank	į	A-0000	01.1	0 9	r }	0 mL	. 1	1	<u> </u>
10-JUN-2009	15:33	fhk	STD_1 09GCSV0048	5.0/0/0/0ng/m	A-0000	02.	0 0	r	0 mL	. !	1.	<u> </u>
10-JUN-2009	16:23	fhk	STD_2 09GCSV0049	10/20/10/10ng	A-0000	03.	0 9	1	O mt	- 1	1,	II
10-JUN-2009	17:14	{ fhk	STO_3 0%GCSV0050	20/50/20/20ng	A-0000	04.	0 9	. 1	0 mL	- 1	1	1 Back Stol
10-300-2009	18:05	Ehk	STD_4 09GCSV0051	50/100/50/50n	A-0000	65.	0 9	1	O mL	ĺ	1	}]
10-JUN-2009	18:56	{fbk	STD_S OSGCSVOOS3	100/200/100/1	A-0000	06.1	0 9	1	Oml	ł	ı	l
10-JUN-2009	19:46	fhk	STD_6 09GCSV0054	200/500/200/2	A-0000	07.	0 9	1	0 mL		1	I
10-JUN-2009	20:37	l thk	STD_7 OFGCSCOOSS	500/1000/500/	A-0000	00.}	0 g	1	O ML	İ	1	1
10-JUN-2009	21;28	[£hk	STD_8 OSGCSVOOS6	1000/2000/100	A-0000	1.00	Q g	1	0 mL	1	1	J <u></u> [
10-JUN-2009	22:18	(fhk	Blank	I	A-0000	10.	0 g	. 1	O mit,	ł	1	
10-JUN-2009	23:09	[£hk	[ICV_6 DEGCSV0397	100/200/100/1	A~0000	11.	0 g	1	O mL	1	1	I!
11-JUN-2009	00:00	Ehk	STD_5 09GCSV0053	100/200/100/1	A-0000	13.	0 g	1	0 mL	ţ	1	ll
11-JUN-2009	00:50	fhk	Surrogate 100ng/m	il l	A-0000	13. [0 g	1	0 wP	ş	1	l
11-JUN-2009	12:56	fhk	Primer	ĺ	A-0000	14.	0 g	Ī	.D mL	J	1	I
11-JUN-2009	13:47	f hk	STD_3 09GCSV0050	20/50/20/20ng	A-0000	16.	0 g	1	0 mL	1	1	restricted New State

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33 End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD

: Disabled Origin Target Version : 4.14 Integrator : Falcon

: \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M Method file

Last Edit Curve Type : 11-Jun-2009 15:06 kenneyf

: Average

carve withe . werede			
Calibration File Names:			
Level 1: \\Terastation\shar			
Level 2: \\Terastation\shar	e\GCdata\GCdata	\LC10.I\0610200	$9.B\A-000003.d$
Level 3: \\Terastation\shar	e\GCdata\GCdata	\LC10.I\0610200	9.B\A-000015.d
Level 4: \\Terastation\shar	e\GCdata\GCdata	\LC10.I\0610200	9.B\A-000005.d
Level 5: \\Terastation\shar	e\GCdata\GCdata	\LC10.I\0610200	9.B\A-000006.d
Level 6: \\Terastation\shar	e\GCdata\GCdata	\LC10.I\0610200	9.B\A-000007.d
Level 7: \\Terastation\shar			
Tevel 8: \\Terastation\shar			

Compound	5.000 Level 1	10 000 Level 2	20.000 Level 3	50.000 Level 4	100.000 Level 5	•	: —	% RSD)
·	Level 7	 1000.000 Level 8		 		 	} !	 - -	1 ALK
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3 RDX		79.81500		30 72000	18.45000		77.89163	5.156	! ! !
4 EGDN	+++++	+++++ +++++	+++++	 ++++	1 +++++	++++	 +++++ [+++++	 <-
5 Picric ACTD	+++++ 74.63400	74.87800		85 66000	84.85500	84.88200	82.77483	8.120	1 (
6 1,3,5-Trinitrobenzene	161			250	147	148	148	4.610	
7 1,3-Dinitrobenzene	145		•	142	139	142	140	3.715	
8 3,5 Dinitroaniline		90.80000	89.35000	91.80000	88.83000	•	89.97350	4.581	
9 TETRYL		95 10000 94 40900	/	/96,03C00	94.31000	- /	92.79113	6.888	

INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33 End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled

: Disabled Origin Target Version : 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M

Last Edit : 11-Jun-2009 15:06 kenneyf

Curve Type : Average

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}	•		20.000		•	200.000		
Compound	•	•	•	Level 4	Level 5	Level 6	RRF	∦ RSD
1	,		•				!	1
}	•	11000.000		ļ	1	1	!	(
}	•	Level 8		1	ļ	!	ļ	{
	•	,	•	•	•		•	, 2662525555
10 Nitrobenzene	•	•	•	61.44000	61 06000	62.26000	•	
		1 61.95700	1	į			60.67412	4.659
11 Nitroglycerin	+++++	! +++++ :	} +++++	1 +++++	+++++	1 +++++	} •	
	+++++	1 +++++		!	,	1	+++++	, +++++
		1					ļ	}
12 2,4,6-Trinitrotoluene	•	•	•	88.78000	87.04000	87.55500	•	ļ
	84.22200	87 17800	1	1	}	!	87.70937	4.401
			//			62.67000		
13 4-AM-2,6-DNT	•	•	` .	63 26000	V 61.61000	·	•	Í
	58.65400	[61 14600 [<u> </u> -	!	! •		62.31125	
7	ı	1						
14 2-AM-4,6-DNT	•			75.54000	73.53000	74.39000		
		72,13500	•	j			73.55987	2.932
AC A Disituateluna	57.60000		,	1	'	'	* * * * * *	
15 2,6-Dinitrotoluene	50.43000	•	•	1 23.28000	53.03000 		 53.23800	3.835
	-	52,74900		I I	 	 	33.23000	3.635
16 2,4-Dinitrotoluene	•	•	1	/ 86 20000		85.49000		
10 274 01111000400	81.43200			00.20900	411/2000		85.62488	4.031
				 				4,001
17 2-Nitrotoluene	•					35 77500		
		35.45000				•	35.93113	6.486
******					·	•		
18 4-Nitrotoluene	48.00000	46.40000	40.75000	43.56000	43.22000	43 56500	ï	
		43.21300				•	43.79800	5.390
			·			i		
19 3-Nitrotoluene	47.00000]	44.60000	∕39.85000	/43 24000	/42.93000l	43.08000]	i	,
		42.82400			1		43.13000	4.852
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20 PETN	+++++	+++++	+++++	+++++	+++++	+++++	i	i
	+++++	+++++ 1	į	,	İ		+++++	+++++
						,		=======
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					'			I

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33

End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled

Target Version : 4.14
Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

	5.000	10.000	20,000	50.000	100.000	200.000	<u> </u>	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	* RSD
1	]	]					1	
1	500.000	1000.000	1			[	]	
1	Leve) 7	Level 8	[	1	1	•	1	ļ .
	32822830R	******	<i>==</i> ≠===±=	22222222				**********
\$ 1 3,4-Dinitrotoluene	+++++	50.10000	M46.40000	46.48000	45.87000	46.85500		l
1	46.08000	48.38600	<u> </u>	`		Í	47.16729	3.251
1			·					
I		l	<b> </b>		l		I	

Start Cal Date

: 10-JUN-2009 16:23

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

: 11-JUN-2009 13:47 End Cal Date : ESTD Quant Method : Disabled Origin Target Version : 4.14 Integrator : Falcon : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\833 Method file : 11-Jun-2009 15:14 kenneyf Last Edit Curve Type : Average Calibration File Names: Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A-0 Level 3: Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A-0 Level 5: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d\A-C Level 6: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A-C Level 7: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A-C

Level 8: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A-C

	10,000	20.000	50.000	1 100 000	200.000	1 600 000	· · · · · · · · · · · · · · · · · · ·	1
Compound	•	•	•	•	Level 6	•		1 } % RSD
							i	İ
	1000.000	1	1	[	1	t	1	1
	Level 8	1		1	1	}	}	1
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2 HMX	+++++	1 +++++	+++++ 	++++ }	j +++++	<u> </u> +++++	1 +++++	   +++++
	***** -}	 	 	1 	 	 	)	
3 RDX	+++++	, [ +++++	,   ++++	,   +++-+	+++++	,   +++++	İ	ĺ
	+++++	{	ĺ	1	ŀ	1	+++++	++++
						}		
4 EGDN	+++++	+++++	++++	+++41	+++++	{ +++++	ļ •	[ ]
	1	† 1 <b></b>	‡ 	 	l !	 	+++++ 	+++++ 
5 Picric ACID	+++++	134	126	),25	125	,   110	, 	! !
	110	1	j		j	l I	] 122	8.080
6 1,3,5-Trinitrobenzene	+++++	+++++	+++++	++++	+++++	+++++		
	+++++	<b>{</b>			[		++++	++++
0 1 2 Dinitrohonous	1 +++++		+++++	++++	 	+++++		* • • • • · · · · · · · · · · · · · · ·
7 1,3-Dinitrobenzene	1 +++++	<b>  ++++</b> 		***** 	, +++++ ! 	<del>                                    </del>	!   +++++	++++
8 3,5-Dinitroaniline	+++++	++++	++++	****	+++++	+++++		
	+++++						+++++	++++
,								
	1++++	+++++	+++++	+++++	+++++	+++++		İ
9 TETRYL	1 11111 1						+++++	++++

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23

End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD Origin : Disabled

Target Version : 4.14
Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\833
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

Compound	Level 2	Level 3	Level 4		200.000   Level 6		· —	   % RSD
·	1000.000   Level 8				<b></b>	{   	   	 
10 Nitrobenzene	+++++	****** 	++++	++++-	=========     	+++++	+++++	
11 Nitroglycerin	+++++   61.73900	•	59.82000	60.58000	61.86500	•	60.83467	
12 2,4,6-Trinitrotoluene	+++++	**+++   	*****	++++	+++++	+++++	     +++++	++++
13 4-AM-2,6-DNT	+++++	+++++	+++++	   +++++	+++++ 	+++++   		++++
14 2-AM-4,6-DNT	+++++   +++++	   +++++	   +++++	+++++	f++++	+++++		++++
15 2,6-Dinitrotoluene	+++++		+++++   	++++	+++++	++++	 	+++++
16 2,4-Dinitrotoluene	+++++		+++++ [	+++++	+++++	+++++		+++++
17 2-Nitrotoluene	   +++++     +++++	   +++++	+++++	+++++ [	*****	+++++	         	++++
18 4-Nitrotoluene		   +++++   	+++++   	+++++	+++++	+++++	+++++	++++
19 3-Nitrotoluene	   +++++    +++++	+++++	+++++ {	++++1	+++++	+++++ {	+++++ [	+++++
20 PETN	   +++++		30.36000	31.91000	32.25000	32.38000	32.05033	2.748

Page 3

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD

Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon

Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83:

Last Edit : 11-Jun-2009 15:14 kenneyf

Curve Type : Average

Compound	, ,	50.000   100.000   Level 4   Level 5	•	· <del>- </del> :
	  1000.000     Level 8		•    	!
	====	  -  -  -  -  -  -  -  -  -  -  -  -  -	• •	   ===================================
	93.14200			89.85478  2.142  
	1 2/2/2/	tropped due to p	wer lute out in	

A-000011.D

Chromatography Summary

Injection Date:

6/10/2009 23:09

LC10

Operators fisk

Method 8330 Target Analyte Results

DataFile: Instrument ID: Vial Num:

Sample:

ICV_6 08GCSV0397 100/200/100/100ng/mL Method File:

LC10 1\06102009 B\8330AB M

Extract Volume

 $0\,\mathrm{mL}$ 

LC10,N06102009 B\A-000011,D

Start Cal Dates

Dilution Factor

6/10/2009 15:33

200 -100%

Fails

 $(\pm 15)$ 

NONE Matrix

Sublist: CALsub

SpikeListi

Sample Volume Sample Weight

6/11/2009 13.47

Samp. Infor

ICV_6 08GCSV0397 100/200/100/100ng/mL;2

ıх

 $0 \, mL$ 9 O

Misc. Info:

36; , : :3:CAL sub; :0:1

			Signal i U	IV 250-2	265						Signal 2 UV	358-205	:				
Compound Name	RT	Response	PPB	Spike Level	%Ď	Result	Flag	RT	Response		PPB	Spike Level	%D	Result	Flag Lin	nits(%)	Flag
3,4-Dinitrotoluene				200	-100%	riaits-	<u> </u>	rin	WA		ALA A - (	200	-100%	Falls	(;	±15)	
нмх	5.29	26153	216.4000<	200	398	Acceptable		,				200	-100%	<b>Fails</b>	(:	±15)	45
RDX	7.84	16084	206.5000<	200	395	Ассертавію						,200	-100%	Pails	(;	±15)	45
Pierie ACID	9.00	41754	504,4000	<b>-</b> 500	េះ	Acceptable		9 00	6(5)	1)9 :	\$05.5000<	500	1%	Acceptable	(#	±15)	
1,3,5-Trinitrobenzene	10.20	29097	197.1000<	200	-132	Acceptable						200	-100%	Fails	(+	±15)	45
1,3-Dinitrobenzene	13,25	27834	199,2000<	200	9%	Acceptable						200	-100%	Falls	(3	±15)	45
TETRYL	14.30	17776	191.6000<	200	492	Acceptable						200	-100%	Fails	(4	±15)	45
Nitrobenzene	15,16	12143	200.1000<	200	0%	Acceptable						200	-100%	Fails	(±	±15)	45
2,4,6-Trinitrotoluene	16.53	17352	197.8000<	200	-18	Acceptable						200	-100%	Fails	(:	±15)	45
4-AM-2,6-DNT	17.51	11969	192.1000< ,	/ 200	.4%	Acceptable						200	-100%	Fails	(±	£15)	45
2-AM-4,6-DNT	18.57	13851	188 3000<	200	∙6%	Acceptable						200	-100%	Fails	(±	£15)	45
2,6-Dinitrotoluenc	20 28	10445	196.2000<	200	-2%	Acceptable						200	-100%	Fails	(±	:15)	45
2,4-Dintrotoluene	21 00	16653	194.5000<	200	-3%	Acceptable						200	-100%	Falls	(%	15)	45
2-Nitrotoluene	24.68	7069	196 7000<	200	-2%	Acceptable						200	-100%	Fails	(±	:15)	45
4-Nitrotoluene	26.50	8526	194.7000<	200	-3%	Acceptable						200	-100%	Fails	(±	:15)	45
3-Nitrotoluene	28,49	8451	195.9000<	200	-2%	Acceptable						200	-100%	Fails	(±	15)	45
Nitroglycerin				200	-100%	Pails		1578	1254	8 2	:06 3000< 🌽	200	3%	Acceptable	(±	15)	45
PETN					-100%	Fails		30.10	583	0 1	81 9000< ,	/200	-9%	Acceptable	(‡	15)	45
3,5-Dinstroapiline	13.99	18460	205.2000<	200	3%	Acceptable					•		-100%	<b>Fails</b>	(±	15)	45

Notes:

M = Manually Integrated

EGDN

D = Operator Disabled Result

Signals Differ by More Than 40% Signals Differ by More Than 50%

200 -100%

O = Over Calibration Range

Printed: 6/11/2009 3:26 PM

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC10

Batch ID: 07022009

Method: Method 8330

Test : SOP SAC-LC-0009

ICAL Date: See Calibration Report

,	Date	Time	Operator	Sample	מז מז	File ID	Vol or	Extract	Diln	Comments
1	•	!	t	1	ŀ	•	Wt	Vol	J	ſ
1	=======================================	.4212222	<b>=48</b>	=======================================			************	*******	======	=================
I	05-10F-5009	15:27	[fhk	Primer	}	A-000001.	0 g	0 mL	1	I
1	02-JUL-2009	16:18	fhk	Primer	•	A-0000C2.		0 mL	1	l
1	02-JUL-2009 ]	17:09	1.	STD_6 09GCSV0054	.4K/.2/.2/.2/	A-000003.	<b>0</b> g	0 mL	1	l
١	02-JUL-2009	18:00		LFW791AA 9182192				20 mL	1	l
١	05-JAT-5003	18:50	£hk	LFW791AC 9182192				20 mL	1	l
j	05-101-5009	19:40	fhk	LFQAK1AC 9182192	G9F260326-1 1	A-000006.	997.78 ան	20 mL	] 1	1
1	05-20r-5000	20:31	fhk 💮	LFQAL1AC 9182192	G9F260326-2 1	A-000007 J	991 12 mL	50 WF	1	l
١	02-JUL-2009	21:22	fhk 🤝	LFQAM1AC 9182192	G9F260326-3 1	A-000008.	1009.82 mL	20 mL	1.	l
ŀ	02-JUL-2009	22:13	fhk	LFRD61AC 9182192	G9F270189-1 1	A-000009.	985.56 mL	20 mL	ı	1
ļ	02-JUL-2009	23:03	fhk	LFRD71AC 9182192	G9F270189-2 1	A-000010.	999 12 mL	20 mL	1	1
١	02-JUL-2009	23:54	fhk	LFRD81AC \$182192	G9F270189-3 1 .	A-000011.	991 73 mL	20 mL	1	l
ļ	03-JUL-2009	00:45	fhk 📈	STD_5 09GCSV0053	.2K/.1/ 1/.1/	A-000012.	0 g	0 mL (	1	l
	03-JUL-2009	01.:36	fhk	LFRD91AC 9182192	G9F270189-4 1	A-000013.	996.78 mL [	20 տե	1	<u> </u>
	03-JUL-2009 }	02:27	fhk	LFREAINC 9182192	G9F270189-5 1	A-000014.	995.33 mL [	20 mL {	1	1
	03-JUL-2009	03:17	{ thk	LFV9A1AC 9182192	G9F300242-1 1	A-000015.	1014.4 mL	20 mL	ı	1
	03-JUL-2009	04.07	fhk	LFV9G1AC 9182192	G9F300242-2 1	A-000016	975.28 mL	20 mL	1	l
	03-JUL-2009	04:58	fhk	LFV9J1AC 9182192	G9F300242-3 1	A-000017.	1018.21 mL	20 mL	1	1
	03-JUL-2009	05:49	fhk	LFV9K1AC 9182192 (	G9F300242-4 1 2	A-000018.	1028.11 mL	20 mL	1	1
	03-JUL-2009	06:39	fhk	LFV9K1AF 9182192 (	G9F300242-4 S J	A-000019.	1018.28 mL	20 mL	1	1
	03-JUD-2009 {	07.30	fhk	LFV9K1AG 9182192 (	G9F300242-4 D]/	A-000020.1	1017 3 mL l	20 mL	1	i
	03-JUL-2009	08:20	fhk	LFV9M1AC 9182192 (	39F300242-5 1 /	A-000021	1016.72 mL	20 mL 1	1	
	03-JUL-2009	0,9 : 3.1	thk 1	STD 6 09GCSV0054	4K/ 2/,2/,2/ 2	N-000022.	0 g	O mL 1	1	
	03-JUL-2009 ]	10:01	1 :	09GCSV0234 LEVEL		A-000023.	0 g	0 mL	1	!
	03-JUL-2009	10:52	fbk	09GCSV0235 LEVEL :	2 12	\-000024.	0 g	o mt. [	1	]
	03-301-2009	11:42	fhk	09GCSV0236 LEVEL 3	3 /2	4-000025.	0 g	0 mL i	1	1
	03-JUL-2009	12:33	fhk	09GCSV0237 LEVEL 4		4-000026.1	0 g	O mL	1	1
	03-JUL-2009	13.23	fhk	09GCSV0238 LEVEL 5	A. :	1-000027.	0 g	0 mL l	1	1
	03-JUL-2009	14:14	· .	09GCSV0239 LEVEL 5		-000028.	0 g	0 mL	1	j
	03-JUL-2009	L5:04	1 1	09GCSV0240 LEVEL 6	•	-000029,1	0 g	O mL	1	,
	03-JUL-2009	15:55		09GCSV0241 LEVEL 7	•	-000030	Cq !	O mL	1	' I
	03-700-2009	16.45	1.	09GCSV0242 LEVEL 8		-000035   -000031l	0 g	O mL (	ı	'
	03-300-2009		: :	09GC9V0243 MRL		-000032.	0 g	J Zin O	1	!

#### A-000003.D

Chromatography Summary

NONE

Injection Date:

7/2/2009 [7:09

1.010

Operator: fik

Method 8330 Target Analyte Results

SubList: CAL sub

DataFile: Instrument ID: 1.C10.1\07022009 B\A-000003 D

Vial Num: 2

Sample:

STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Method File:

LC10 N07022009 B\8330AB M

 Start Cal Date:
 6/10/2009 15.33
 End Cal Date:
 6/11/2009 13:47

 Dilution Factor
 Extract Volume
 Sample Volume
 Sample Weight

 1X
 0 mL
 0 mL
 0 g

SpikeList:

Samp, Info: STD_6 09GC8 V6054 4K/ 2/.2/ 2/ 2,2

Mise. Info:

Matrix:

,6, , ,3;CAL sub. ,0,1

			Signal 1 t	JV 250-2	65					Signal 2 UV	358-205					
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag J	Limits(%)	Flag
3,4-Dinitrotolitene	18 20	9636	204.3000<	200	2%	Acceptable		18 20	18445	213 4000	200	7%	Acceptable		(±15)	
нмх	5 29	25432	210.5000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7 85	16295	209 2000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	8.99	41811	505 1000	500	1%	Acceptable		8 99	61520	505 6000<	500	1%	Acceptable		(±15)	
1,3 5-Trinstrobenzene	10.20	30367	205 7000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
1,3.Dinttrobenzene	13.26	29099	208.3000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14 32	19114	206 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15 19	12872	212.1000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.55	18075	206.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17 55	12873	206.6000<	200	398	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18 61	15046	204 5000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20 34	10970	206.0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinstrotoluene	21.06	17567	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotolnene	24.79	7368	205 0000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
4-Natrotolacae	26.61	8982	205 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.64	8962	207 8000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.31	12531	206 0000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30 22	6862	214 1000<	200	7%	Acceptable		(±15)	45
3.5-Dinitroaniline	14 01	18502	205 6000<	200	3%	Acceptable						-100%	Fails		(±15)	45
EGDN				200	-100%	Fails						-100%	Fails		(±15)	

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/2/2009 7:28 PM

#### A-000012.D

End Cal Date:

Chromatography Summary

NONE

Injection Date:

7/3/2009 0:45

DataFile:

1.C10 N97022009 BIA-000012 D

Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID:

LCIO

Sample:

STD_5 09GCSV0053 .2K/.1/.1/.1

SubList: CAL sub

Method File:

LC10 I\07022009 B\8330AB M

Start Cal Date:

6/10/2009 15 33

6/11/2009 13.47

0 g

Dilution Factor

Extract Volume

Sample Weight Sample Volume

1X

0 mL

0 mL

Samp. Info: Mise. Infor

Matrix:

STD_5 09GCSV0053 2K/ 1/ 1/ 1/.1;2 :5; ; ; ;3;CAL sub. ,0,1

Stens! 1 HV 250-265

SpikeList:

Signal 2 UV 358-205

			Signal I U	A 520-5	:00					Signal 2 UV	338-203					
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 21	4770	>0001.101	100	1%	Acceptable		18 21	9105	105 3000	100	5%	Acceptable		(±:15)	
HMX	5 29	12664	104 8000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7 86	8028	103 1000<	100	356	Acceptable					100	-100%	Fails		(±15)	45
Picrie ACID	9.05	16980	205 1000	200	3%	Acceptable		9 05	25011	205 5000<	200	3%	Acceptable		(±15)	
1.3,5-Tranitrobenzene	10 21	15116	102 4000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3.Dmitrobenzene	13,27	14453	103 5000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14 34	9510	102 5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15 20	6322	104 2000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2.4,6-Trinitrotoluene	16 57	9018	102 8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17 56	6403	102 8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-A41-4,6-DNT	18.63	7503	102 1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinstrotoluene	20 35	5455	102 5000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dinttrotoluene	21.08	8726	101.9000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24,79	3635	101 2000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotolucae	26 61	4448	101 6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	28 63	4394	101 9000<	100		Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin					-100%	Fails		15 82	6254	102.8000<	100	3%	Acceptable		(±15)	45
PETN					-100%	Fails		30.25	3304	103 1000<	100	3%	Acceptable		(±15)	45
3,5-Dinitroantline	14.02	9179	102 0000<	100		Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails		(±15)	



Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/7/2009 10:01 AM

#### A-000022.D

 $0\,mL$ 

Chromatography Summary

Injection Date:

7/3/2009 9.11

Operator: fik

Method 8330 Target Analyte Results

**DataFile:** Instrument ID: LC10 I\07022009 B\A-000022 D

Vial Num: 4

Sample:

STD_6 09GCSV0054 .4K/.2/.2/.2/.2

SpikeList:

Method File:

LC10 I\07022009.B\8330AB M

6/11/2009 13:47 Start Cal Date: 6/10/2009 15.33 End Cal Date: Dilution Factor Extract Volume Sample Volume Sample Weight

1X

0 mL

LCIO

0 g

Matrix: Samp, Info:

STD_6 09GCSV0054 4KJ.2/2/2/2/2.2

SubList: CAL-sub

Misc. Info:

,6, , . ,3,CALsub, ,0.1

			Signal I &	JV 250-2	65					Signal 2 UV	358-205				
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flug	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotolisenc	18.24	9589	203.3000<	200	2%	Acceptable		18,23	18200	211 6000	200	6%	Acceptable	(±15)	
HMX	5 30	25440	210.6000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
RDX	7 87	16268	208.8000<	200	4%	Acceptable					200	-100%	Fails	(≄15)	45
Pione ACID	9.04	42655	515.3000	500	3%	Acceptable		9 04	62723	515 5000<	500	3%	Acceptable	(±15)	
1,3.5-Trantrobenzene	10 22	30282	205 1000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dinitrobenzene	13 29	28991	207 5000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	14 35	19191	206 8000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	15 21	12738	209.9090<	200	5%	Acceptable					200	-100%	<b>Fails</b>	(±15)	45
2,4,6-Trinitrotolucne	16 58	18022	205 5000<	200	3%	Acceptable					200	-100%	<b>Fails</b>	(±15)	45
4-AM-2,6-DNT	17.58	12828	205.9000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18.65	15059	204 7000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dmitrotoluene	20 38	10882	201 4000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	21.10	17483	204 2000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2-Nitrotoluene	24 82	7294	203,0000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
4-Nitrotoluene	26.64	8876	202.6000<	200	1%	Acceptable						-100%	Fails	(±15)	45
3-Nitrotolucne	28.67	8836	204 9000<	200	2%	Acceptable						-100%	Fails	(±15)	45
Nitroglycerin					-100%	Fails		15 84	12481	205 2000<	200	3%	Acceptable	(±15)	45
PETN					-100%			30.27	6681	208 4000<	200	4%	Acceptable	(±15)	45
3.5-Dinttroantline	14 03	18458	205.1000<	200	3%	Acceptable						-100%	Fails	(±15)	45
EGDN					-100%	•						-100%	Fails	(±15)	.=



Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

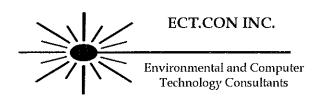
Printed: 7/7/2009 10:10 AM

Data Validation Report

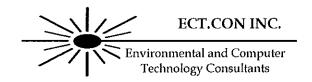
Michael Baker Jr., Inc

Camp Bonneville

SDG#: PSF0839



3531 Fox Chase Drive Imperial, PA 15126 (724) 695-8042 FAX (724) 695-2698 e-mail: ectconinc@comcast.net



#### **Data Validation Report**

SDG#	PSF0839
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

Settip105/1/100	1111				
Date	Location	Portland ID	Sacramento	Explosives	Matrix
Sampled			ID		
06/24/09	23LCMW03DW	PSF0839-01	LFRD6	Х	Aqueous
06/25/09	23LCMW03SW	PSF0839-02	LFRD7	Х	Aqueous
06/25/09	23LCMW02DW	PSF0839-03	LFRD8	Х	Aqueous
06/25/09	23LCMW02SW	PSF0839-04	LFRD9	Х	Aqueous
06/25/09	23LCMW01DW	PSF0839-05	LFREA	Х	Aqueous

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

#### **SUMMARY**

The sample set for the Camp Bonneville site consists of five aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

- Data Completeness
- * Holding Times
- Calibration (Initial and Continuing)
  - Blanks
- System Monitoring Compounds (Surrogate Spikes)
- Matrix Spike/Matrix Spike Duplicates
- Laboratory Control Standard Results
- Target Compound Identification
  - Compound Quantification and Reported Contract Quantitation Limits

- * System Performance
- * Criteria were met for this evaluation item.

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

#### **FINDINGS**

#### 1. Blanks

The laboratory method blank exhibited contamination for the following parameter:

Blank	Compound	Maximum	Action Limit	Action
		Concentration	(ppm)	
		(ppb)		
LFW791	1,3,5-Trinitrobenzene	0.038	0.19	U sample results < RL

RL - reporting limit

#### 2. Compound Quantitiation

In sample 23LCMW02DW, the positive result below the reporting limit for 2-nitrotoluene was not confirmed. Therefore, the form one was amended to show the result as nondetected "U" at the reporting limit.

#### NOTES

#### Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was not analyzed with this SDG. A laboratory control sample was analyzed. Data were not qualified on this basis.

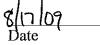
#### **Laboratory Control Sample Results**

Recovery of 12 out of 17 compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the associated samples. Data were not qualified on this basis.

#### **Field Duplicate Results**

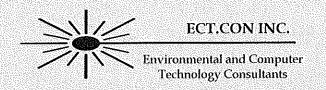
No field duplicates were included with this SDG. Data were not qualified on this basis.

Data Reviewer



## Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts.
R UR	Unusable Result. Unusable Result.	Analyte may or may not be present in the sample.  Analyte may or may not be present in the sample.



# Annotated Form 1's (Spreadsheet)

Client Sample ID: PSF0839-01

HPLC 23LCMW030W

Work Order # ...: LFRD61AC Matrix..... WATER Lot-Sample #...: G9F270189-001

Date Received..: 06/27/09 Date Sampled...: 06/24/09 Analysis Date..: 07/02/09 Prep Date....: 07/01/09

Prep Batch #...: 9182192

Method....: SW846 8330 Dilution Factor: 1.01

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	MD	0.66	ug/L	0.15
PETN	ND	0.66	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.13
2-Amino-4,6-	ND	0.20	ug/L	0.10
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.073
3-Nitrotoluene	ND	0.40	ug/L	0.063
4-Nitrotoluene	ND	0.50	ug/L	0.073
RDX	ND	0.10	ug/L	0.066
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	0.035 J,B	0.10.0	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	105	(79 <b>- 1</b> 11)		

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Client Sample ID: PSF0839-02

HDT.C

23CMW 035W

Lot-Sample #...: G9F270189-002 Work Order #...: LFRD71AC Matrix...... WATER

Date Sampled...: 06/25/09 Date Received..: 06/27/09
Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1 Method.....: SW846 8330

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1,0	ug/L	0.12
2-Amino-4,6-	ND	0.20	ug/L	0.10
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0,10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.072
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	.0937-J.B-	0.10 🔾	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	1.06	(79 - 111)		



J Estimated result Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

Client Sample ID: PSF0839-03

HPLC 23LCMW02DW

Work Order #...: LFRD81AC Lot-Sample #...: G9F270189-003 Matrix..... WATER

Date Sampled...: 06/25/09 Date Received..: 06/27/09 Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Method..... SW846 8330 Dilution Factor: 1

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-	ND	0.20	ug/L	0.10
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ND	0.10	ug/L	0.050
2-Nitrotoluene	-0-20-3-S	0.40 🔰	ug/L	0.072
3-Nitrotoluene	מא '	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	0-034 J.B	0.10\	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024
	PERCENT	RECOVERY		
Cinnodamo				
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	104	(79 - 111)		

I Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

Client Sample ID: PSF0839-04 23LCMW 02SW

Matrix....: WATER Work Order #...: LFRD91AC Lot-Sample #...: G9F270189-004 Date Received..: 06/27/09 Date Sampled...: 06/25/09 Analysis Date..: 07/03/09

Prep Date....: 07/01/09 Prep Batch #...: 9182192

Method..... SW846 8330 Dilution Factor: 1

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.65	ug/L	0.15
PETN	ND	0.65	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.12
2-Amino-4,6-	ND	0.20	ug/L	0.10
dinitrotoluene				
4-Amino-2,6~	ИD	0.10	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050
HMX	ND	0.10	ug/L	0.027
Nitrobenzene	ИD	0.10	ug/L	0.050
2-Nitrotoluene	ND	0.40	ug/L	0.072
3-Nitrotoluene	ND	0.40	ug/L	0.062
4-Nitrotoluene	ND	0.50	ug/L	0.072
RDX	ND	0.10	ug/L	0.065
Tetryl	ND	0.10	ug/L	0.050
1,3,5-Trinitrobenzene	_0_0 <del>37_J,</del> B	0.10 🔾	ug/L	0.031
2,4,6-Trinitrotoluene	ND	0.10	ug/L	0.024
	DEDGENE	RECOVERY		
OVER TANK THE	PERCENT			
SURROGATE	RECOVERY	LIMITS	<del></del>	
3,4-Dinitrotoluene	105	(79 - 111)		



J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

Client Sample ID: PSF0839-05

HAPE SSTEWMOLDM

Matrix....: WATER Lot-Sample #...: G9F270189-005 Work Order #...: LFREA1AC

Date Sampled...: 06/25/09 Date Received..: 06/27/09 Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192

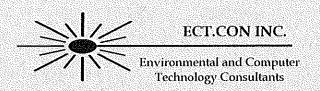
Method..... SW846 8330 Dilution Factor: 1.01

		REPORTING			
PARAMETER	RESULT	LIMIT	UNITS	MDL	
Nitroglycerin	ND	0.66	ug/L	0.15	
PETN	ND	0.66	ug/L	0.23	
Picric Acid	ND	1.0	ug/L	0.13	
2-Amino-4,6-	ND	0.20	ug/L	0.10	
dinitrotoluene					
4-Amino-2,6-	ND	0.10	ug/L	0.022	
dinitrotoluene					
1,3-Dinitrobenzene	ND	0.10	ug/L	0.050	
2,4-Dinitrotoluene	ND	0.10	ug/L	0.050	
2,6-Dinitrotoluene	ND	0.10	ug/L	0.050	
HMX	ND	0.10	ug/L	0.027	
Nitrobenzene	ND	0.10	ug/L	0.050	
2-Nitrotoluene	ND	0.40	ug/L	0.073	
3-Nitrotoluene	ND	0.40	ug/L	0.063	
4-Nitrotoluene	ND	0.50	ug/L	0.073	
RDX	ND	0.10	ug/L	0.066	
Tetryl	ND	0.10	ug/L	0.050	
1,3,5-Trinitrobenzene	0 <del>-038 Л,</del> В	0.10	ug/L	0.031	
2,4,6-Trinitrotoluene	ИD	0.10	ug/L	0.024	
	neogena	DEGOVERN			
GUDD OG SME	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS			
3,4-Dinitrotoluene	105	(79 - 11)	L)		



I Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.



# Support Documentation

# Laboratory Case Narrative



#### DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc. James D. Peyton 5261 Fountain Drive, Suite A Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater Client Project Number: 110002 Task 6200

TA Work Order#: PSF0839

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

154

July 31, 2009

TestAmerica - Portland 9405 S. W. Nimbus Avenue Beaverton, Oregon 97008 (503) 906-9200 (503) 906-9210



#### **CASE NARRATIVE**

Client:

Michael Baker Jr., Inc.

110002 Task 6200

Date Sampled:

6/25/2009 to

6/24/2009

Project:

Camp Bonneville Groundwater

**Date Received:** 

6/25/2009

Lab:

PSF0839

SAMPLE RECEIPT:

Samples were received intact, on ice, with chain of custody

documentation. The sample temperature was measured at 3.4 °C upon

receipt at the laboratory.

**HOLDING TIMES:** 

All samples were analyzed within holding times.

PROBLEMS

**ENCOUNTERED:** 

No problems were encountered.

QA/QC CRITERIA:

No problems were encountered during sample analysis.

**OBSERVATIONS:** 

No significant observations were made.

SUBCONTRACTED:

314.0_9196313 (Perchlorate) and SW846 8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is included in this data deliverables package as

Appendix A.

La Richen

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

TestAmerica Portland

Estella Rieben Project Manager

Page 1



THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132

ph: (503) 906,9200 fax: (503) 906,9210

Michael Baker Jr., Inc. Project Name: Camp Bonneville Groundwater

5261 Fountain Drive, Suite A Project Number: 110002 Task 6200

Crown Point, IN 46307 Project Manager. James D. Peyton

Report Created: 07/21/09 08:43

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23LCMW03DW	PSF0839-01	Water	06/24/09 17:45	06/25/09 17:45
23LCMW03SW	PSF0839-02	Water	06/25/09 09:30	06/25/09 17:45
23LCMW02DW	PSF0839-03	Water	06/25/09 11:30	06/25/09 17:45
23LCMW02SW	PSF0839-04	Water	06/25/09 13:00	06/25/09 17:45
23LCMW01DW	PSF0839-05	Water	06/25/09 14:45	06/25/09 17:45
TB261	PSF0839-06	Water	06/25/09 00:00	06/25/09 17:45

TestAmerica Portland

Estella Rieben, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



July 28, 2009

TestAmerica Project Number: G9F270189

PO/Contract: PSF0839

Estella Rieben TestAmerica Portland Nimbus Corporate Center 9405 SW Nimbus Ave Beaverton, OR 97008

Dear Ms. Rieben,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on June 27, 2009. These samples are associated with your Michael Baker Jr., Inc. project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,

Linda C. Laver Project Manager

Sunda C' Farre

#### **Case Narrative**

### TestAmerica West Sacramento Project Number G9F270189

#### **General Comments**

One of the two bottles for sample PSF0839-01 was received broken. One of the two bottles for sample PSF0839-02 was received with a broken cap. The cap was replaced and this bottle was marked for backup use only.

#### WATER, 8330, Nitroaromatics & Nitramines

Samples: 1, 2, 3, 4, 5

The laboratory control sample (LCS) associated with this extraction batch has percent recoveries for most analytes above the established control limits indicating a potential high bias in the data. These samples do not have detected concentrations above the reporting limit for these analytes and there is no adverse impact upon the data.

The matrix spike/matrix spike duplicate (MS/MSD) associated with this extraction batch also has recoveries and/or precision is outside the established control limits for many analytes. This anomaly is most likely matrix related.

There are no other anomalies associated with this project.

## **Sample Summary**

# TestAmerica West Sacramento Project Number G9F270189

<u>WO#</u>	Sample #	Client Sample ID	Sampling Date	Received Date
LFRD6	1	PSF0839-01	6/24/2009 05:45 PM	6/27/2009 10:00 AM
LFRD7	2	PSF0839-02	6/25/2009 09:30 AM	6/27/2009 10:00 AM
LFRD8	3	PSF0839-03	6/25/2009 11:30 AM	6/27/2009 10:00 AM
LFRD9	4	PSF0839-04	6/25/2009 01:00 PM	6/27/2009 10:00 AM
LFREA	5	PSF0839-05	6/25/2009 02:45 PM	6/27/2009 10:00 AM

#### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

# Chain of Custody

# **TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

(1729) North Creek Pkwy, N. Suite 400, Bashell, WA 0801 (1823).
(1922) E. Prest, Nye. Spekang, WA 04096 8302.
(2405) Annibus, Ave Reagelini, OR 97008-7147.

date Walterflade und Arpeie Rateste von Archestage, Archester, dans

CLIENT: M.Chorel Borker Jr. Inc	CHA	IAIN OF CUSTODY REPORT	Work Order #: PSF 0839 TURNAROUND REQUEST
ADDRESS: STEEL TOUTH STANDARD STANDARDS: STEEL TOUT IN 16307			in Business Days  Ogams & the game Madyss  The first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the first the
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PROJECT NUMBER: LICYCO T (5000)	HCL NA NA		
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)cmes	1. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Sylve 20. Syl		³ Turnavand Requests less than standard may mear Rush charges.
SAMPLING DATE/TIME	10 V 10 V 10 V 10 V 10 V 10 V 10 V 10 V		MATRIN # OF LOCATION ITA (W, S. O) CONT, COMMENTS WO ID
23CMW103BW 6/34/09-1745 X	× ×		C)IIC)
2336 mwassu (005/09-0970	× ×		3 7 3
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- 33LC MU 0 25W (6/25/09 -1300	X X X		w 6 Notes
3441- PO/ZE 1945	×		6) 10 NOTICS
, 10261 6/25/09	×		W I NoTES
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			TAL-linko4083

# TestAmerica Portland Sample Receiving Checklist

	rk Ore ent Na	der #: <u>PSFO839</u> Date/Time Received: nme and Project: <b>Michael Bake</b>	'el25 Camp	Bonnew	1745 ill
	e Zone DT/ES	and the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th	□ak	OTHER	
C	ooler # peratui		Temp	Ice Melte	gh or No Ice
N/A	Yes	No		Init	ials: BIF
<b>\Big </b> :		1. If ESI client, were temp blanks received? If no, d	ocument o	on NOD.	
E		2. Cooler Seals intact? (N/A if hand delivered) if no	, docume	nt on NOD.	
	ĮΣt`	3. Chain of Custody present? If no, document on N	OD.		
		4. Bottles received intact? If no, document on NOD	).		
		5. Sample is not multiphasic? If no, document on N	IOD.		
		6. Proper Container and preservatives used? If no, o	locument	on NOD.	
		7. pH of all samples checked and meet requirements	? If no, d	ocument on N	10D.
		8. Cyanide samples checked for sulfides and meet re	quiremen	ts? If no, not	ify PM.
<u> </u>		9. HF Dilution required?			
	X] Y]	<ul> <li>10. Sufficient volume provided for all analysis? If n PM before proceeding.</li> <li>11. Did chain of custody agree with samples received</li> </ul>			
		12. Is the "Sampled by" section of the COC complete			NOD.
		☐ 13. Were VOA/Oil Syringe samples without headspa			
	<u>,</u>	☐ 14. Were VOA vials preserved? ☐ Sodium T		- Mascorbic	Acid
		15. Did samples require preservation with sodium this			
		16. If yes to #14, was the residual chlorine test negat		document on	NOD
		17. Are dissolved/field filtered metals bottles sedime			
		<ul> <li>18. Is sufficient volume provided for client requested no, document on NOD and contact PM before proceed</li> <li>19. Are analyses with short holding times received in</li> </ul>	MS/MSI		
•		20. Was Standard Turn Around (TAT) requested?	noid;		
		21. Receipt date(s) < 48 hours past the collection date	(s)? If no	. notify PM	

# TestAmerica Portland Sample Receiving Checklist

Work Order #: **PSF0839** 

Log	gin C	hecks: Initials: P5
N/A	Yes	No
	Z	22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM.
X		23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If
		no, document on NOD and contact PM,
		24. Did the chain of custody include "received by" and "relinquished by" signatures,
		dates and times?
Ø		25. Were special log in instructions read and followed?
	Z	26. Were tests logged checked against the COC?
$\mathbb{Z}$		27. Were rush notices printed and delivered?
Ø		28. Were short hold notices printed and delivered?
	Ø	29. Were subcontract COCs printed?
		☐ 30. Was HF dilution logged?
Lab	eling	and Storage Checks: Initials: [MX]
N'A	Yes	No
-100 Y	$\square$	31. Were the subcontracted samples/containers put in Sx fridge?
$\Box$		32. Were sample bottles and COC double checked for dissolved/filtered metals?
	囟	33. Did the sample ID, Date, and Time from label match what was logged?
		34. Were Foreign sample stickers affixed to each container and containers stored in
		foreign fridge?
內		35. Were HF stickers affixed to each container, and containers stored in Sx fridge?
	X	36. Was an NOD for created for noted discrepancies and placed in folder?
Docun form (	nent an NOD).	y problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy



## LOT RECEIPT CHECKLIST TestAmerica West Sacramento

CLIENT 141	- Poutla	ud	PM LL	_LOG#_592	24(
LOT# (QUANTIMS I	10) G9F27	ud 10189 al	OTE# 83365	LOCATION	4216
	·	•		Initials	Date
DATE RECEIVED _	6-27-09	_ TIME RECEIVED	600		6-27-99
DELIVERED BY	FEDEX AIRBORNE UPS TAL COURIER OTHER	☐ CA OVERNIGHT ☐ GOLDENSTATE ☐ BAX GLOBAL ☐ VALLEY LOGISTIC	☐ DHL ☐ GO-GETTERS	ŀ	
		☐ BROKEN ☐ N	'A		
CUSTODY SEAL #(S	s) <u>104</u>	265		_	
SHIPPPING CONTA	INER(S)	- CLIENT	□ N/A		4
TEMPERTURE REC	ORD (IN °C) YR	40 50 0 c	THER		
COC #(S)		WX			
TEMPERATURE BLA	ANK Observ	/ed: 🙏 2 Corre	cted:		
SAMPLE TEMPERA					
Observed:Ø	Averag	e:(_Corrected	Average:		
COLLECTOR'S NAM	IE· [_] Ver	fied from COC AN	t on COC	-	
pH MEASURED	☐ YES	S ANOMALY	A/N-E1		
LABELED BY				<del> </del>	
PEER REVIEW	BY	DNA	**** **** ***		
SHORT HOLD TEST	NOTIFICATION	SAME	LE RECEIVING		
			HEM INA		
		VOA-I	ENCORES N/A		
☐ METALS NOTIFIE	D OF FILTER/PRESE	RVE VIA VERBAL & EN	AAIL ØN/A		
		GOOD CONDITION WI TAINERS, PRESERVA		1	
☑ CLOUSEAU	TEMPERATI	URE EXCEEDED (2 °C	-6 °C) ^{*1}		
WET ICE Notes: PSF	-08-39-01	GELPACK NO		rokon	1 NOTIFIED
			e on boll	P	

^{*1} Acceptable temperature range for State of Wisconsin samples is <4°C

## Worksheets

#### HOLDING TIMES

· <del></del> ·	T		Sacramento Lab			
SAMPLE DATE	SAMPLE ID	Portland LAB ID	ID (	Matrix	Prep	Anal
06/24/09	23LCMW03DW	PSF0839-01	LFRD6	Aq	07/01/09	7/2/09 IX
06/25/09	23LCMW03SW	PSF0839-02	LFRD7	Aq	07/01/09	7/2/09 1X
06/25/09	23LCMW02DW	PSF0839-03	LFRD8	Aq	07/01/09	7/2/09 1X
06/25/09	23LCMW02SW	PSF0839-04	LFRD9	Aq	07/01/09	7/3/09 1X
06/25/09	23LCMW01DW	PSF0839-05	LFREA	Aq	07/01/09	7/3/09 1X

days from collection to extraction

Sample Date

6/24/2009

7/1/2009

40 Sample Date days from extraction to analysis 7/1/2009

Extract By Extract By

8/10/2009

#### TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client? Did Sample Form 1s match the target compound list

No NA

Were required quantitation limits provided by the client? Did all compounds meet the required quantitation limits? No NA

#### SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN 1	DF	ACTION
Ali IN				

Were surrogate RTs within windows established by the ICAL?

Yes No

Were there any transcription errors between the raw data and Form 2? Were laboratory acceptance limits used as the basis for validation?

30-150

Did the laboratory provide CLP Form II or equivlaent?

Yes

ALL

#### 02DW

SURR	AMOUNT FOUND	AMOUNT SPIKED	% R	F1
34-DNT A			#DIV/0!	104
34-DNT C			#D[V/0]	

#### MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

Non-Client

#### LABORATORY CONTROL SAMPLES

	SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION
i	LFW791	12 of 17 HI		NA	NA '	none, ND

Were laboratory acceptance limits used as the basis for validation?

Did the laboratory provide CLP Form III or equivlaent?

Yes Yes

Were chromatograms and quan reports present for all LCS/LCDs?

Yes

LFW791	RDX			
12 of 17 HI	AMOUNT FOUND	AMOUNT SPIKED	% R	FORM 3
LCS	1.27	1	127.0	127
%R = (Amount Found	I/Amount Spiked)*100			

#### BLANKS

BLANK	COMPOUND	RESULT	5X OR 10X	ACTION LEVEL	ACTION
LFW791	135-TNBENZ	0.038	5	0.19	U at RL

NOTE

Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

Yes Yes No 20% RSD or 0.99 Yes  Yes Yes Yes No 25% D Yes Yes Yes A Cald %RSD 5.156  81.80 STD DEV 4 75.90 77.15 80.72 78.45 80.13 69.168 %RSD = {Std Dev/Avg CF}*100 79.815
Yes No 20% RSD or 0.99 Yes  Yes Yes Yes No 23% D Yes Yes Yes Yes  77.89163 Rptd %RSD 5.156 FF 77.892 Cald %RSD 5.156  81.80 STD DEV 4 75.90 77.15 80.72 78.45 80.13 69.168 %RSD = (Std Dev/Avg CF)*100
No 20% RSD or 0.99 Yes  Yes Yes Yes No 25% D Yes Yes Yes Yes  77.89163 Rptd %RSD 5.156 FF 77.892 Cald %RSD 5.156  81.80 STD DEV 4 75.90 77.15 80.72 78.45 80.13 69.168 %RSD = (Std Dev/Avg CF)*100
20% RSD or 0.99 Yes  Yes Yes No 25% D Yes Yes Yes  77.89163 Rptd %RSD 5.156  81.80 STD DEV 4 75.90 77.15 80.72 78.45 80.13 69.168 %RSD = (Std Dev/Avg CF)*100
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Yes Yes No 25% D Yes Yes Yes Yes Yes  7 77.89163
Yes No 25% D Yes Yes Yes  7.7.89163
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81.80 STD DEV 4 75.90 77.15 80.72 78.45 80.13 69.168 %RSD = {Std Dev/Avg CF}*100
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80.72 78.45 80.13 69.168 %RSD = {Std Dev/Avg CF}*100
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69.168 %RSD = (Std Dev/Avg CF)*100
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NA NA No No Yes
NA NA No No Yes Yes No
NA NA No No Yes Yes No No

Non-C'and

Matrix....: WATER

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### HPLC

Client Lot #...: G9F270189

Work Order #...: LFV9K1AF-MS

MS Lot-Sample #: G9F300242-004

LFV9K1AG-MSD

Date Sampled...: 06/26/09

Date Received..: 06/30/09

Prep Date....: 07/01/09

Analysis Date..: 07/03/09

Prep Batch #...: 9182192 Dilution Factor: 0.98

	PERCENT	RECOVERY		RPD	
PARAMETER	RECOVERY	LIMITS	RPD	LIMITS	METHOD
Nitroglycerin	106	(85 - 115)			SW846 8330
-	108	(85 - 115)	2.0	(0-15)	SW846 8330
PETN	110	(84 - 117)			SW846 8330
	111	(84 - 117)	0.90	(0-15)	SW846 8330
Picric Acid	70	(21 - 118)			SW846 8330
	99 p	(21 ~ 118)	35	(0-20)	SW846 8330
2-Amino-4,6-	125 a	(77 - 123)			SW846 8330
dinitrotoluene					
	129 a	(77 - 123)	3.4	(0-27)	SW846 8330
4-Amino-2,6- dinitrotoluene	1.16 a	(68 - 113)			SW846 8330
V.III ELOUGI WING	120 a	(68 - 113)	3.0	(0-30)	SW846 8330
1,3-Dinitrobenzene	<b>12</b> 5 a	(72 - 123)			SW846 8330
·	130 a	(72 - 123)	4.1	(0-29)	SW846 8330
2,4-Dinitrotoluene	120 a	(70 - 119)			SW846 8330
,	124 a	(70 - 119)	2.9	(0-30)	SW846 8330
2,6-Dinitrotoluene	122 a	(71 - 119)			SW846 8330 ·
	125 a	(71 - 119)	2.9	(0-29)	SW846 8330
HMX	118 a	(67 - 115)			SW846 8330
	120 a	(67 - 115)	1.4	(0-32)	SW846 8330
Nitrobenzene	121 a	(69 - 119)			SW846 8330
	124 a	(69 - 119)	2.5	(0-31)	SW846 8330
2-Nitrotoluene	117	(64 - 120)			SW846 8330
	1.1.3	(64 - 120)	2.7	(0-36)	SW846 8330
3-Nitrotoluene	113	(67 - 114)			SW846 8330
	115 a	(67 - 114)	2.0	(0-31)	SW846 8330
4-Nitrotoluene	114	(67 - 115)			SW846 8330
	116 a	(67 - 1.15)	2.3	(0-32)	SW846 8330
RDX	121	(68 - 122)			SW846 8330
	129 a	(68 - 122)	6.3	(0-32)	SW846 8330
Tetryl	102	(66 ~ 105)			SW846 8330
	106 a	(66 ~ 105)	4.2	(0~26)	SW846 8330
1,3,5-Trinitrobenzene	119	(74 ~ 120)			SW846 8330
	124 a	(74 - 120)	4.3	(0-29)	SW846 8330
2,4,6-Trinitrotoluene	113 a	(69 - 111)			SW846 8330
	117 a	(69 - 111)	3.4	(0-28)	SW846 8330

(Continued on next page)

#### MATRIX SPIKE SAMPLE EVALUATION REPORT

#### HPLC

Client Lot #...: G9F270189 Work Order #...: LFV9K1AF-MS Matrix..... WATER

MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

 SURROGATE
 RECOVERY
 LIMITS

 3,4-Dinitrotoluene
 104
 (79 - 111)

 107
 (79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

p Relative percent difference (RPD) is outside stated control limits.

a Spiked analyte recovery is outside stated control limits.

#### MATRIX SPIKE SAMPLE DATA REPORT

#### HPLC

Client Lot #...: G9F270189 Work Order #...: LFV9K1AF-MS Matrix..... WATER

MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192 Dilution Factor: 0.98

	SAMPLE	SPIKE	MEASRD		PERCNT			
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD	<b>-</b>
Nitroglycerin	ND	4.91	5.19	սց/ն	106		SW846 8330	
	ND	4.92	5,29	ug/L	108	2.0	SW846 8330	
PETN	ND	4.91	5.41	ug/ь	1.1.0		SW846 8330	
	ND	4.92	5.46	ug/L	111	0.90	SW846 8330	
Picric Acid	ND	4.91	3.41	սց/Ն	70		SW846 8330	
	ND	4.92	4.85	ug/L	99 p	35	SW846 8330	
2-Amino-4,6-	ND	0.982	1.22	սց/Ն	125 a		SW846 8330	
dinitrotoluene								
	ND	0.983	1.26	սց/Ն	129 a	3.4	SW846 8330	
4-Amino-2,6-	ND	0.982	1.14	ug/L	116 a		SW846 8330	
dinitrotoluene								
	ND	0.983	1.18	ug/L	120 a	3.0	SW846 8330	
				_				
1,3-Dinitrobenzene	ND	0.982	1.23	ug/L	125 a		SW846 8330	
	ND	0,983	1.28	սց/ե	130 a	4.1	SW846 8330	
2,4-Dinitrotoluene	ND	0.982	1.18	ug/L	120 a		SW846 8330	
	MD	0.983	1.22	ug/L	124 a	2.9	SW846 8330	
2,6-Dinitrotoluene	ND	0.982	1.19	ug/L	1.22 a		SW846 8330	
	ND	0.983	1.23	ug/L	125 a	2.9	SW846 8330	
HMX	ND	0.982	1.16	ug/L	118 a		SW846 8330	
	ND	0.983	1.18	սց/Ն	120 a	1.4	SW846 8330	
Nitrobenzene	MD	0.982	1.19	ug/L	121 a		SW846 8330	
	ND	0.983	1,22	ug/L	124 a	2.5	SW846 8330	
2-Nitrotoluene	ND	0.982	1.14	ug/ಓ	117		SW846 8330	
	ND	0.983	1.11	սց/ಓ	113	2.7	SW846 8330	
3-Nitrotoluene	ND	0.982	1.11	ug/ಓ	113		SW846 8330	
	NID	0.983	1.14	ug/L	115 a	2.0	SW846 8330	
4-Nitrotoluene	ND	0.982	1.12	ug/L	114		SW846 8330	
	ND	0.983	1.14	ug/L		2.3	SW846 8330	
RDX	ND	0.982	1.19	ug/Ľ	121		SW846 8330	
	ND	0.983	1.27	ug/Ն	129 a	6.3	SW846 8330	
Tetryl	ND	0.982	0.998	ug/L	102		SW846 8330	
	ND	0.983	1.04	ug/Ն	106 a	4.2	SW846 8330	
1,3,5-Trinitrobenzene	0.035	0.982	1.20	սց/և	119		SW846 8330	
	0.035	0.983	1.26	սց/Ն	124 a	4.3	SW846 8330	
2,4,6-Trinitrotoluene	ND	0.982	1.11	ug/L	113 a		SW846 8330	
	ND	0.983	1.15	ug/L	117 a	3.4	SW846 8330	

(Continued on next page)

#### MATRIX SPIKE SAMPLE DATA REPORT

#### HPLC

Client Lot #...: G9F270189

Work Order #...: LFV9K1AF-MS

Matrix....: WATER

MS Lot-Sample #: G9F300242-004

LFV9K1AG-MSD

 SURROGATE
 PERCENT
 RECOVERY

 3,4-Dinitrotoluene
 104
 (79 - 111)

 107
 (79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

- p Relative percent difference (RPD) is outside stated control limits.
- a Spiked analyte recovery is outside stated control limits.

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### HPLC

Client Lot #...: G9F270189 Work Order #...: LFW791AC Matrix.....: WATER

LCS Lot-Sample#: G9G010000-192

Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1

	PERCENT	RECOVERY	
PARAMETER	RECOVERY	LIMITS	METHOD
Nitroglycerin	107	(85 - 115)	SW846 8330
PETN	110	(84 - 117)	SW846 8330
Picric Acid	88	(21 - 118)	SW846 8330
2-Amino-4,6-	127 a	(77 - 123)	SW846 8330
dinitrotoluene			
4-Amino-2,6-	119 a	(68 - 113)	SW846 8330
dinitrotoluene			
1,3-Dinitrobenzene	128 a	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	123 a	(70 - 119)	SW846 8330
2,6-Dinitrotoluene	125 a	(71 - 119)	SW846 8330
HMX	120 a	(67 - 115)	SW846 8330
Nitrobenzene	124 a	(69 - 119)	SW846 8330
2-Nitrotoluene	115	(64 - 120)	SW846 8330
3-Nitrotoluene	118 a	(67 - 1.1.4)	SW846 8330
4-Nitrotoluene	117 a	(67 - 115)	SW846 8330
RDX	127 a	(68 - 122)	SW846 8330
Tetryl	105	(66 - 105)	SW846 8330
1,3,5-Trinitrobenzene	127 a	(74 - 120)	SW846 8330
2,4,6-Trinitrotoluene	116 a	(69 - 111)	SW846 8330
		PERCENT	RECOVERY
SURROGATE		RECOVERY	LIMITS
3,4-Dinitrotoluene		106	(79 - 111)

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### HPLC

Client Lot #...: G9F270189 Work Order #...: LFW791AC Matrix.....: WATER

LCS Lot-Sample#: G9G010000-192

Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
Nitroglycerin	5.00	5.35	ug/L	107	SW846 8330
PRTN	5.00	5.52	ug/L	110	SW846 8330
Picric Acid	5.00	4.42	ug/L	88	SW846 8330
2-Amino-4,6-	1.00	1.27 a	ug/L	127	SW846 8330
dinitrotoluene					
4-Amino-2,6-	1.00	1.19 a	ug/L	119	SW846 8330
dinitrotoluene					
1,3-Dinitrobenzene	1.00	1.28 a	ug/L	128	SW846 8330
2,4-Dinitrotoluene	100	1.23 a	ug/L	123	SW846 8330
2,6-Dinitrotoluene	1.00	1.25 a	ug/L	125	SW846 8330
HMX	1.00	1.20 a	ug/L	120	SW846 8330
Nitrobenzene	1.00	1.24 a	ug/L	124	SW846 8330
2-Nitrotoluene	1.00	1.15	ug/L	115	SW846 8330
3-Nitrotoluene	1.00	1.18 a	ug/L	118	SW846 8330
4-Nitrotoluene	1.00	1.17 a	ug/L	117	SW846 8330
RDX	1.00	1.27 a	ug/L	127	SW846 8330
Tetryl	1.00	1.05	ug/L	105	SW846 8330
1,3,5-Trinitrobenzene	1.00	1.27 a	ug/L	127	SW846 8330
2,4,6-Trinitrotoluene	1.00	1.16 a	ug/L	116	SW846 8330
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS	_	
3,4-Dinitrotoluene		106	(79 - 111)	1	

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.

#### METHOD BLANK REPORT

#### HPLC

Client Lot #...: G9F270189 Work Order #...: LFW791AA Matrix..... WATER

MB Lot-Sample #: G9G010000-192
Prep Date....: 07/01/09

Analysis Date..: 07/02/09 Prep Batch #...: 9182192

Dilution Factor: 1

		REPORTII	NG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ИD	1.0	ug/L	SW846 8330
2-Amino-4,6-	ИD	0.20	ug/L	SW846 8330
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	SW846 8330
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	(0.039 J)	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	AD.	0.10	ug/L	SW846 8330
	PERCENT	RECOVERY	?	
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	106	(79 - 11	.1)	

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

### QC DATA ASSOCIATION SUMMARY

#### G9F270189

#### Sample Preparation and Analysis Control Numbers

		ANALYTICAL	LEACH	PREP	
SAMPLE#	MATRIX	METHOD	BATCH #	BATCH #	MS RUN#
001	WATER	SW846 8330		9182192	9182194
002	WATER	SW846 8330		9182192	9182194
003	WATER	SW846 8330		9182192	9182194
004	WATER	SW846 8330		9182192	9182194
005	WATER	SW846 8330		9182192	9182194

lestAmerica West ( ESC-Extraction Ma

Į	Holding Time Due: 7/1/09 7/02/09 Project Due: 7/10/09 7/13/09 BATCH #: 9182192 TP Extn Comp'd By: TP	7/13/09 Date: 7/01/69
Code	Lab ID Sample Final Size Initial Volume Final Mass	0 0 0 d
•	MB See weight Sheet Tripped	
اد	577	
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	69F300242-05	
		Standard Information
	TP 7/02/09 Volume	STD 1D Exp. STD Name/Conc. ppm//pb
	105 114 . Sul	8330 Sur Sough
		2, 5 DWA SE
	4/2/1/ 1/00ML	11/1/09 NG 1PETN Seg/Int 5
		Date: No.
	CO COURS: B = IMB, C = LCS, L = LCSD, S = MS, D = SD, FB = Filter Blank	

2/09 9:39	alGrou			0095	- 676 (91	B) Otabule	raes taoli	enirom <b>4</b>	3 <b>0</b> 1		
Run Date: 7/02/09 Time: 11:49:39	erable pied ted to AnalyticalGrou pied per COC	7/01/09 9:00 7/02/09 10:40		SPIKE STANDARD/ SURROGATE ID	50UL-09GCSV0172	SOUL-09GCSV0172	SOUL-09GCSV0172	50UL-09GCSV0172	50UL-09GCSV0172	50UL-09GCSV0172	50UL-09GCSV0172
	Delik etted etted ubart et	7/0			0,	0	٥.	0	0.	0.	5.0
••	Expanded Deliverable CCC Completed Y Bench Sheet Copied Package Submitted to ?	PREP DATE: COMP DATE:	plosives (8330)	PENTS	4.5 HOAC/ACN 5	4.5 HOAC/ACN S	4.5 HOAC/ACN 5	4.5 HOAC/ACN S	4.5 HOAC/ACN 5	4.5 HOAC/ACN S	4.5 HOAC/ACN 5
Inc. SHEBT	*****************	*	Nitroaromatics & Nitramines: Explosives SOLID PEASE EXTRACTION (NOMINAL)	SOLVENTS EXTRACTION VOL EXCHANGE	HOAC/ACN	HOAC/ACN	HOAC/ACN	HOAC/ACN	HOAC/ACN	HOAC/ACN	HOAC/ACN
ories, I Work	* * *	BATCH	ics & EXTR	E ADJ2	en en	NA	A.N.	MA	AM	NA	NA
orate BENCE	**	20 * 20 * *	FORMAT	PH"S	NA	NA	AN	N.	N.	AN	N.
trion		* * * *	itroan Mind	INIT	NA	MA	g J	MA	NA	MA	AN
TestAmerica Laboratories, Inc. EXTRACTION BENCH WORKSHEET	set tume sets all match wethod		Ξ.	INIT/FIN WT/VOL	997.78mL 20.00mL	991.12mL 20.00mL	1009.82mL 20.00mL	985.56mi 20.00mi	999.12mL 20.00mL	991.73mL 20.00mL	996.78mL 20.00mL
	Workshe rect vol worksh brrect saction			MATRIX	Water	WATER	WATER	WAIER	WATER	WATER	Water
	mes ogate s corr obars ch: c			T WTH	B7 A0	B7 A0	B7 A0	B7 A0	B7 A0	B7 A0	B7 A0
	/Volu Surr mtain gree ir bat	rn Phan	60/3	SS EXT	#I	щ	щ	Д	ъц	щ	tτί
	LEV LEV Y Spik Y T Spik Y T Labe	002448 Tuan Q. Phan (7: 002448 Tuan Q.	PHANT / 7/02/09	LOT#, MSRUN#/ TEST WORK CRDER FLGS	G9F260326-001 09 IFQAK-1-AC	G9F260326-002 '09 LFQAL-1-AC	G9F260326-003 09 LFQAM-1-AC	G9F270189-001 '09 LFKD6-1-AC	G9F270189-002 '09 LFRD7-1-AC	G9F270189-003 '09 LFRD8-1-AC	G9F270189-004 '09 LFRD9-1-AC
œ	Blank Check MS/MSD	nist: tionis	Date:	ANT	7/10/09	7/10/09	7/10/09	7/13/09	7/13/09	7/13/09	7/13/09
RQC058	LESV FY FY FY FY FY FY FY FY FY FY FY FY FY	Extractionist:	Reviewer/Date	EXTR	7/01/09 COMMENTS:	7/01/09 COMMENTS:	7/01/09 COMMENTS:	7/01/09 COMMENTS:	7/02/09 COMMENTS:	7/02/09 COMMENTS:	7/02/09 COMMENTS:

RQC058				TestAmerica Laboratories, Inc. EXTRACTION BENCH WORKSHEET	rabo ION B	ENCH	ies, WORKS	Inc. HBET			Run Date: Time:	7/0
					* * *	****	****	***************************************				
					*	QC BATCH:	****	* QC BATCH: 9182192 * * *********************************	DREP DATE: COMP DATE:		7/01/09 9 7/02/09 10	9:00
EXTR	ANT LOT#, MSRUN#/ TEST DUE WORK ORDER FLGS	EXT MTH	MATRIX	INIT/FIN WT/VOL	LINI	PH"S ADJ1	ADJZ	SOEXTRACTION	SOLVENTS EXTRACTION VOL EXCHANGE	NOL S	SPIKE STANDARD/ SURROGATE ID	SARD/
7/02/09 COMMENTS:	G9F270189-005 7/13/09 LFREA-1-AC	B7 A0	WATER	985.33mL 20.00mL	en E	NA NA	AN AN	HOAC/ACN	4.5 HOAC/ACN	5, O	50UL-09GCSV0172	70172
7/02/09 COMMENTS:	G9F300242-001 7/14/09 LFV9A-1-AC	B7 A0	WATER	1014.4mL 20.00mL	NA A	an A	MA	HOAC/ACN	4.5 HOAC/ACN	и О и	50UL-09GCSV0172	70172
7/02/09 COMMENTS:	G9F300242~002 7/14/09 LFV9G-1-AC	B7 A0	WATER	975.28mL 20.00mi	AM.	N.	æ	HOAC/ACN	4.5 HOAC/ACN	بر 0 ت	50UL-09GCSV0172	70172
7/02/09 COMMENTS:	G9F300242-003 7/14/09 LFV9J-1-AC	B7 A0	WATER	1018.21mL 20.00mL	en	NA	AN .	HOAC/ACN	4.5 HOAC/ACN	ທ 0 ທ	50UL-09GCSV0172	V0172
7/03/09 COMMENTS:	G9F300242-004 7/14/09 LFV9K-1-AC	B7 A0	WATER	1028 11mL 20.00mL	NA.	NA	ĕ.	HOAC/ACN	4.5 HOAC/ACN	м О М	50UL-09GCSV0172	70172
7/03/09 COMMENTS:	G9F300242-004 7/14/09 LFV9K-1-AFS	B7 A0	WATER	1018.28mL 20.00mL	N.	KN K	AN.	HOAC/ACN	4.5 HOAC/ACN	ນ ດຸ	SEE BENCH SHEET SOUL-09GCSV0172	SHEET VO172
7/03/09 COMMENTS:	G9F300242-004 7/14/09 LFV9K-1-AGD	B7 A0	WATER	1017.3mL 20.00mL	A.	AN	A.	HOAC/ACN	4.5 HOAC/ACN	5.0 0.0	SEE BENCH SHRET SOUL-09GCSV0172	SHEET VOI72
7/03/09 COMMENTS:	G9F300242-005 7/14/09 LFV9M-1-AC	B7 A0	WATER	1016.72mL 20.00mL	AN.	NA	E.	HOAC/ACN	4.5 HOAC/ACN	5. 0. 0.	50UL-09GCSV0172	V0172
7/01/09 COMMENTS:	G9G010000-192 0/00/00 LFW79-1-AAB	B7 A0	WATER	1000mL 20.00mL	Æ	NA	æ	HOAC/ACN	4.5 HOAC/ACN	ru O	50UL-09GCSV0172	V0172
7/01/09 COMMENTS:	0/00/00 LFW79-1-ACC	B7 A0	WATER	1000mL 20.00mL	Ą	NA	en e	HOAC/ACN	4.5 HOAC/ACN	φ Ο	SEE BENCH SHEET 50UL-09GCSV0172	SHEET VOI72

## TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC10

Batch ID: 06102009

Method: Method 8330

Test : SOP SAC-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample	ID	File ID	Vol or	E	xtract	Diln	Comments
	1 .	ţ	1		1	Wt	I	Vol	1	1
######################################	*******	*************	naydetteaxent'ettaske:	*43====================================	<b>ಆರ್ಥವಾಗಿ ಅವರ</b> ಗ	*********	4440	********	CARESKS	(장나의 학원 호텔 등 등 등 기업 후 한 교육 등 기업 등 기업 등 기업 등 기업 등 기업 등 기업 등 기업 등 기
10-JUN-2009	14:42	fhk	Blank		A-000001.	0 g	1	0 mL	1	Ī
10-JUN-2009	15:33	£hk	STD_1 09GCSV0048	5.0/0/0/ong/m	A-000002.	) (g	1	0 mL	I	1
10-J0N-2009	16:23	£hk	STD_2 09GCSV0049	10/20/10/10ng	A-000003.	l og	1	0 mL	1	1
10-JUN-2009	17:14	fhk	STD_3 09GCSV0050	20/50/20/20ng	A-000004.	0 g	ł	0 mL	1	1 Baol Stel
10-JUN-2009	18:05	fhk	STD_4 09GCSV0051	50/100/50/50n	A-000005.	0 g	[	O mŁ	ı	<b></b>
1.0-301-2009	18:56	Ehk	STD_5 09CCSV0053	100/200/100/1	A-000006.	0 g	1	O mL	1	1
10-JUN-2009	19:46	fhk	STD_6 0900SV0054	200/500/200/2	A-000007,	0 g	I	0 տև	1	l
10-JUN-2009	3 20:37	Ehk	STD_7 09GCSC0055	500/1000/500/	A-000008.	0 g	j	0 mi,	1	<u> </u>
10-JUN-2009	21:28	fhk.	STD_8 09CCSV0056	1000/2000/100	A-000009.	0 g	l	Jm 0	1	\
10-100-2009	22:18	fhk	Blank	1	A-000010.	0 g	1	0 WL	1	1
10-JUN-2009	23:09	fhk	ICV_6 08GCSV0397	100/200/100/1	A-000011.	0 g	1	O ML	1	
11-JUN-2009	00:00	Ehk	STD_5 09CCSV0053	100/200/100/1	A-000012.	0 g	1	O ML	1	1
11-JUN-2009	00:50	fhk	Surrogate 100ng/m	L	A-000013.	0 g	1	Jm Q	1	l
11-JUN-2009	12:56	fhh	Primer	j	A-000014.	0 g	1	0 ML	1	II
11-JUN-2009	[ 13:47	fhk	STD_3 09008V0050	20/50/20/20ng	A-000015.	0 g	ş.	Q mL	1	ire injected NOW State

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33 End Cal Date : 11-JUN-2009 13:47

Quant Method : ESTD
Origin : Disabled
Target Version : 4.14
Integrator : Falcon

Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M

Last Edit : 11-Jun-2009 15:06 kenneyf

Curve Type : Average

Calibration File Names:
Level 1: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000002.d
Level 2: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d
Level 3: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d
Level 4: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d
Level 5: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d
Level 6: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d
Level 7: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d
Level 8: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d

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Compound	[ Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	} % RSD	[
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	•	1000 000	]	1		1	<u>;</u>	!	ALK
	Level 7	Level 8	<u> </u>	}	]	! /	•	ļ	1 7 6 (UK
		· /	•	•	255555555	~	•		l Octobe
2 HMX	119	•		125	123	124	_		l s
	1116	123	<u>'</u>	<b>)</b>	. "	i !	121	3.066	l t
3 RDX	1 03 00000	1 64 00000	A2 15000	1 00 22000	/8 45000	1 00 13000		• • • • • • • • • • • • • • • • • • •	į L
3 RDA	•	79.81500	•	80.72000	1 43000	. ,	77.89163	5.156	<b>;</b> {
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4 EGDN	1 +++++	++++	+++++	++++	+++++	++++			! }
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5 Pieric ACID	+++++	+++++	91.72000	85.68000	84.85500	84.88200			}
	74.63400	74.87800		1		1	82.77483	8.120	
	ļ1	[]							
6 1,3,5-Trinitrobenzene	161	146	145	150	147	148	. [	1	
	136	147				[	148	4 610	
	]								
7 1,3-Dinitrobenzene	145	142	138	142	139	142	ļ	ļ	
	128	141					140	3.715	
									1
8 3,5-Dinitroaniline	97.20000	90.80000	89 35000	91.80000	88.83000	90.35000]	1	ł	i
	82.20800 <b> </b>	89.25000	l	'	[	ļ	89.97350	4.581	
		-/	-7					}	
9 TETRYL		•	/	/96.02000	34 31000	_95 06000]		ļ	
İ	92.43000]	94.40900]	_		1	1	92.79113	6.888]	
					[]				
	} <u></u> ,					[			

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33 End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD

: Disabled Origin Target Version : 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

	5 000	10.000	} 20.000	50.000	100.000	200.000	·	ţ
Compound	•	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
	1	1000.000	1	1		1	1 [	İ
	•	Level 8		[	<del> </del>	<b> </b>	[ !	 
10 Nitrobenzene	,		56 55000	•	•	<u>.</u>	•	1
	56.02600	61.95700	į	1	ŧ.		60 67412	4.65
11 Nitroglycerin	+++++	+++++	++++	}   +}+++	+++++	+++++		
	++++	1 +++++	1	1	1	<b>!</b>	+++++	+++++ 
12 2,4,6-Trinitiotoluene	94.80000	90.20000	81.90000	88 78000	87.04000	87.55500		; <del>-</del>
	84.22200	87.17800	1	1	1	1 1	87.70937	4 40
13 4-AM-2,6-DNT	67.00000	63.30000	60.85000	63.26000	61.61000	62.67000	<u></u>	<b></b>
	58.65400	61.14600	. ا	ĺ			62.31125	
14 2-AM-4,6-DNT	74.80000	75.80000	73 10000	75,54000	73,53000	   74.39000		
	69.18400	•	•	<u> </u>			73.55987	
15 2,6-Dinitrotoluene	t I	53,30000	51.90000	   53.68000	,		· · · · · · · · · · · · · · · · · · ·	 
	•	52.74900	[ [	 		 	53 23800	3 83
16 2,4-Dinitrotoluene	•	•	82.60000			'	•	
	81.43200	85.05700	[ 	 	 		85.62488	4.03
17 2-Nitrotoluene	40,80000	37.40000	33.20000	35 64000	35 21000	35.77500	1	
		35.45000					35,93113)	6.48
18 4-Nitrotoluene	,	'	40.75000	43.56000}		43.56500	1	
	41.67600	43.21300			1		43.79800	5.39
19 3-Nitrotoluene	47.00000]	44.60000	/39.85000	/43.24000 <i>)</i>	/42 93000	43.08000	ر ا	
	41.51600		· .	اً	1	1	43.13000	4.85
20 PETN	+++++	+++++	+++++	+…+++	+++++	+++++	۱ ا	****
•	+++++	****	İ	i	1	1	+++++	+++++

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33 End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD

Origin : Disabled Target Version : 4.14 Integrator : Falcon

: \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M : 11-Jun-2009 15:06 kenneyf Method file

Last Edit

Curve Type : Average

April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April 1997 - April	5.000	10.000	20.000	50 000	100.000	200.000		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
1							!	1
!	500.000	1000.000	l	1			1	- 1
	Level 7	Level 8					}	<b> </b>
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\$ 1 3,4-Dinitrotoluene	+++++	50.10000	46.40000	46.48000	45.87000	46.85500	ا ا	1
1	46.08000	18.38600	ُ ا	ľ		,	47.16729	3,251
			Í		}			
<u> </u>			·	l	l	·	l	J

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD Origin : Disabled

Target Version: 4.14
Integrator: Falcon
Method file: \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83:
Last Edit: 11-Jun-2009 15:14 kenneyf
Curve Type: Average

Calibration File Names:	
Level 2: \\Terastation\share\GCdata\G	GCdata\LC10.I\06102009.B\A-000003.d\A-(
	GCdata\LC10.I\06102009.B\A-000015.d\A-(
Level 4: \\Terastation\share\GCdata\G	GCdata\LC10.I\06102009.B\A-000005.d\A-(
	GCdata\LC10.I\06102009.B\A~000006.d\A-(
	GCdata\LC10.I\06102009.B\A-000007.d\A-(
	GCdata\LC10.I\06102009.B\A-000008.d\A-(
Level 8: \\Terastation\share\GCdata\G	GCdata\LC10.I\06102009.B\A~000009.d\A-(

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	10.000	20.000	50.000	•	200.000	•	-	ſ
Compound	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	} % R\$D
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	11000.000	]	!	!	1	]	!	!
	Level 3	1	1	1	ŀ	1	1	1
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2 HMX	****	++++	++++	+++++	+++++	1 +++++	1	!
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3 RDX	++++	+++++	*+++	·++++	+++++	++++	1	ļ
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4 EGDN	++++	+++++	+++++	*****	+++++	++++	!	!
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E 0. 2010 2010				1		[		<i>-</i>
5 Picric ACID	+++++	134	126	125	125	110	•	
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6 1,3,5-Trinitrobenzene	+++++	+++++		1	{ +++++	   +++++		
6 1,3,3-111micropensene	+++++	***** 	+++++ !	+++ <b>~</b> +	***** 	<del>*****</del>   1 :	[   	l 
		l 	[ T	<b>t</b>	; 1	 	<b>++++</b>	+++++
7 1,3-Dinitrobenzene	1							
/ 1,3-Dinicrongazene	1 +++++	+++++	+++++	+++}*	+++++	+++++		
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8 3,5-Dinitroanilane	*****	+++++	+++++	}	+++++	+++++	[ [	'
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9 TETRYL	+++++	+++++	+++++	}+++++ (	+++++	1++++		
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			<u></u>					

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD

: Disabled Origin Target Version : 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\833
Last Edit : 11-Jun-2009 15:14 kenneyf

Curve Type : Average

·· <del>· · · ·</del>		•	•	•	200.000			ļ
Compound	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	\ % RSD
		1				)	) 1	) i
•	1000.000		{ •	<b>!</b> !	1	<b>!</b> [	] 	
	Level 8	•	 	  =======	 		   #24#####	======
10 Nitrobenzene	+++++	1++++	, ] +++++	+++++	] +++++	+++++	j	
	+++++	l	1	İ	1	l	+++++	+++++
, .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					]			<del></del>
11 Nitroglycerin	1 61.73900	•	59.82000	60.58000 	61.86500 		}   60.83467	1.5
	1 67. 73800	! 	[ 	 	: 	 		
12 2,4,6-Trinitrotoluene	+++++	,   +++++	,   +++++	±1+++	++++	+++++	· 	
	+++++		1	•	ì	Ì	+++++	++++
	ļ							<del>-</del>
13 4-AM-2,6-DNT	+++++	+++++	+++++	++++	++++	++++	! ! !	
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14 2-AM-4,6-DNT	+++++	++++	++++	++++	++++	++++	'	
•	+++++		j	İ			+++++	++++
1\$ 2,6-Dinitrotoluene	++++	1++++	+++++	++++	+++++	+++++	<b>.</b>	
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16 2,4-Dinitrotoluene	)   +++++	+++++	++++	<b>+</b> ++++	++++	+++++	ľ	
	+++++				[		++++	++++
17 2-Nitrotoluene	) +++++	++++	+++++	+++++	+++++	+++++	1	
	[ +++++   !	·	 	 	: 		+++++ ]	+++++
18 4-Nitrotoluene	;; } +++++	++++	*++++	++++		+++++	ì	
10 · NIULOUSIUGIO	`   +++++		i	j	i	· 	+++++	+++++
19 3-Nitrotoluene	+++1+	+++++	+++++	++++1	+++++ {	**++	1	
	+++++		 		1		+++++	* + + + +
20 PETN	   +++++	32.65000	30.36000	31.91000	32,250001	32,380001		
4V + M + M	32.75200		1		,		32.05033	2.74
	. ,	•	•	•		•	•	

Page 3

Report Date: 12-Jun-2009 16:04

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD

: Disabled Origin Target Version: 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf

Curve Type : Average

:=====================================	'3	•	[     #8555555   98 76000			·	er=annneca
	93.14200	 	rupped d	    	 	 89,85478	2.142

A-000011.D

Chromatography Summary

Injection Dates

6/10/2009 23:09

LCIO

Operator: fbk

NONE

DataFite: Instrument 1D: LC10 I\06102009 B\A-000011 D

Vial Num: 20

6/11/2009 13:47

Sample :

ICV_6 08GCSV0397 100/200/100/100ng/mL Method File: Start Cal Date: LC10.1\06102009.B\8330AB M

e:

(V10/2009 15:33 End Cal Date:

Entract Volume Sample Volume

Sample Weight

Matrix: N Samp. Info: NE SubList: CALsub ICV_6 08CC\$V0397 100/200/100/100/ng/mL;2

SpikeListi L:2 Dilution Factor

0 mL

Sample Volume Sample We O mL O g

Mise Info:

;6; ; ; ;3;CAL sub; ;0;1

Method 8330 Target Analyte Results

			Signal I U	JV 250-2	65					Signal 2 U\	/ 358-205				
Compound Name	RT	Response	PPB	Spike Level	SFD.	Result	Fing	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoiuene	ing an			200	-100%	Fails	No	rin	11.4.	~~~~~	200	-100%	Falls	(±15)	
нмх			216.4000<	200		Acceptable	•	` '	•		200	-100%	Fails	(±15)	45
RDX	7,84	16084	206.5000<	200	3%	Acceptable					,200	-100%	<b>Fails</b>	(±15)	45
Pierie ACID	9.00	41754	504.4000	× 500	135	Acceptable		9.00	61500	505.5000<	500	1%	Acceptable	(±15)	
1,3,5-Trinstrobenzene	10.20	29097	197.1000<	200	-1%	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dinstrobenzene	13.25	27834	199.2000<	200	60	Ассернавію					200	-100%	Fails	(±15)	45
TETRYL	14.30	17776	191.6000<	200	-498	Acceptable					200	-100%	Fails	(±15)	45
Nitrobonzene	15.16	12143	200.1000<	200	0%	Acceptable					200	-100%	Fails	(±15)	45
2,4,6-Trinitrotoluene	16.53	17352	197,8000<	200	-1%	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17.51	11969	192.1000<	/ 200	-4%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18 57	13851	188.3000<	200	-6%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dmitrotoivenc	20 28	10445	196.2000<	200		Acceptable					200	-100%	Fails	(±15)	45
2,4-Dinitrotolueno	21 00	16653	194.5000<	200		Acceptable					200	-100%	Fails	(±15)	45
2-Nitrotoluene	24.68	7069	196.7000<	200		Acceptable					200	-100%	<b>Fails</b>	(±15)	45
4-Nitrotoluene	26.50	8526	194.7000<	, 200		Acceptable					200	-100%	Fails	(±15)	45
3-Nitrotolueno	28,49	8451	195.9000<	200	-2%	Acceptable					200	-100%	Fails	(±15)	45
Nitroglycerin					-100%	-		15.78	12548	205.3000<	200	3%	Acceptable	(±15)	45
PETN					-100%			30.10	5830	181 9000<		-9%	Acceptable	(±15)	45
3,5-Dinitroaniline	13.99	18460	205.2000<	200	3%	Acceptable					,	-100%	Fails	(±15)	45
Att Same adams				200	-	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									

200 -100%

**Pails** 

(±15)

Notes:

M = Menually Integrated

EGDN

D = Operator Disabled Result

Signals Differ by More Than 40% Signals Differ by More Than 50%

Falls

200 -100%

O = Over Calibration Range

Printed: 6/11/2009 3:26 PM

## TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 07022009

Method: Method 8330 Test: SOP SAC-LC-0009

ICAL Date: See Calibration Report

Date	Time	] Operator	† Sample	ID	File ID	Vol or	Extract	Diln	Comments
	ſ	Í	1		1	Wt	Vol		1
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1 14 AC			**********			0 -4	*******	: ####################################
)2-JUL-2009		fhk	Primer		(A-000001.		∆m O √m O	, 1	1
02-JUL-2009	16:18	fhk	Primer	47/ 5/ 5/ 5	[A-000002		O mL	1	
02-JUL-2009	17:09	thk	STD_6 09GCSV0054		:	: : :	TW O	1	1
)2-JUL-2009	18:00	fhk	LFW791AA 9182192			1	20 mL	1	1
)2-JUL-2009	18:50		LFW791AC 9182192		1	1	20 mL	1	1
02-JUL-2009	19:40	•	LFQAK1AC 9182192				20 mL	1	1
)2-JUL-2009	20:31		LFQAL1AC 9182192		•	•	20 mL	1	1
2-JUL-2009	21:22	fhk	LFQAM1AC 9182192		•	: :	20 mL	1	
2-JUL-2009	22:13	1	LFRD61AC 9182192	•	•	: :	20 ուե	1	<u></u>
3-305-3009	23:03	'	LFRD71AC 9182192		•	• •	20 mL	1	
3-300-3009	23:54	34	LFRD81AC 9182192				20 mL	1	
3-201-5009	00:45	fhk	STD_5 09GC9V0053	.2K/.1/.1/.1/	A-000012.	0 g	Ar 0	1	
3-300-2009	01:36	fhk	LFRD91AC 9182192	G9F270189-4 1	A-000013.	996.78 mL	30 mL	1	[
3-302-2009	02:27	£hk 🚤	LFREA1AC 9182192	G9F270189-5 1	. A-000014.	985.33 mL	20 mL	1	
3-JUL-2009	03:17	fhk	PEA3VIVC 3183133	G9F300242-1 1	. A-000015.	{1014.4 mL	20 mL	1	
3-JUL-2009	04 07	) fhk	LFV9G1AC 9182192	G9F300242-2 1	[A-000016.	975 28 mL	20 atL	1	I
3-JUL-2009 ]	04:58	fhk	LFV9J1AC 9182192	G9F300242-3 1	A-000017.	1018 21 mL	20 mL	1	l
3-JUL-2009	05.49	<b>  fhk</b>	LFV9K1AC 9182192	G9F300242-4 1	.[A-000018.	1028.11 mL	20 mL	1	l <u></u>
3-JUL-2009 )	06.39	fhk	LFV9K1AF 9182192	G9F300242-4 S	A-000019.	1018.28 mL	20 mL	1	
3-JUL-2009	07.30	fhk	LFV9K1AG 9182192	G9F300242-4 D	A-000020	[1017.3 mL	20 mL	1	
3-JUL-2009	08:20	fhk	LFV9M1AC 9182192	G9F300242-5 1	A-000021	[1016.72 mL]	20 աև	1	
3~JUL-2009	09 11	fhk	STD_6 09GCSV0054	.4X/.2/.2/.2/	A-000022	0 g	O mL	ı	
3-JUL-2009	10:01	fhk	09GCSV0234 LEVEL	1	A-000023	] 0 g	0 mL	1	
3-JUL-2009	10.52	fhk	09GCSV0235 LEVEL	2	A-000024	, 0g	O mL	1	
3-JUL-2009	11:42	£hk	09GCSV0236 LEVEL	3	A-000025	0 g	O nL	1	
3-JUL-2009	12:33	fhk	09GCSV0237 LEVEL		A-000026.	: •	O mL	1	
3-JUL-2009	13:23		09GCSV0238 LEVEL		la-000027		0 mL	1	
3-JUL-2009	14:14		OGCSV0239 LEVEL		A-000028	og	O mL	1	1
3-JUE-2009	15:04	:	09GCSV0240 LEVEL		A-000029	1 7 1	0 mL	1	
3-JUL-2009 [	15:55		09GCSV0241 LEVEL		[A-000030.		O mL	1	]
3-200-5000	16:45	•	109GCSV0241 BEVEL		A-000031		0 mL 1	1	
3-JUL-2009	17:36		09GCSV0242 MRL		A-000032.		O mL	1	1

#### A-000003.D

Chromatography Summary

Injection Date:

7/2/2009 17 09

Operator: fhk

DataFile: Instrument ID: LC10.1\07022009.B\A-000003.D

Vial Num: 2

Method 8330 Target Analyte Results

Sample:

STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Method File:

LC10 I\07022009.B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date:

6/11/2009 13:47

Dilution Factor Extract Volume

LC10

Sample Volunie

Matrix

NONE

SubList: CAL sub

SpikeList:

0 mL

Sample Weight

Samp. Info:

\$TD_6 09GC\$V0054 .4KJ 21.2J.2J.2.2

1X

 $0 \, mL$ 

0 g

Misc. Info:

,6, ,; ,3,CAL.sub, ,0,1

Signal 1	UV 250-265	5					Signal 2 U	V 358-205
PPB	Spike Level	%))	Result	Flag	RT	Response	PPB	Spike Level

Compound Name	RT	Response	PPB	Spike Level	%1)	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 20	9636	204 3000<	200	2%	Acceptable	<del></del>	18.20	18445	213 4000	200	7%	Acceptable		(±15)	
НМХ	5 29	25432	210 5000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7 85	16295	209.2000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	8 99	41811	505 1000	500	1%	Acceptable		8 99	61520	505 6000<	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	30367	205 7000<	200	3%	Acceptable						-100%			(±15)	45
1,3-Dinitrobenzene	13 26	29099	208.3000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14 32	19114	206 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	15.19	12872	212.1000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
2,4.6-Transtrotolvene	16.55	18075	206 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.55	12873	206.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.61	15046	204.5000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20 34	10970	206 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinstrotoluene	21 06	17567	205.2000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24 79	7368	205,0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26 61	8982	205 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nurotoluene	28.64	8962	207 8000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15.81	12531	206.0000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30 22	6862	214 1000<	200	7%	Acceptable		(±15)	45
3,5-Dientroamline	14.01	18502	205.6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes.

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/2/2009 7:28 PM

Method 8330 Target Analyte Results

#### A-000012.D

Chromatography Summary

Injection Date:

7/3/2009 0:45

LC10

Operator: fik

DataFile: Instrument ID: LC10 I\07022009.B\A-000012 D

Vial Num: 3

Sample:

STD_5 09GCSV0053 .2K/.1/.1/.1

Method File:

LC10 I\07022009.B\8330AB M

6/11/2009 13:47 Start Cai Date: 6/10/2009 15:33 End Cal Date: Dilution Factor Extract Volume Sample Volume Sample Weight 0 g 0 mL ŧХ 0 mL

Samp, Info:

Matrix:

\$TD_5 09GC\$V0053 .2K/.1/.1/ 1/.1;2

SubList: CAL sub

SpikeList:

.5:: . .3:CAL sub.:0.1 Misc. Info:

13 113¢. 11110.	1211112000000011011

			Signal I C	JV 250-2	65					Signal 2 UV	358-205				
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene	18 21	4770	101 1000<	100	1%	Acceptable		18 21	9105	105 3000	100	5%	Acceptable	(±15)	
HMX	5.29	12664	104.8000<	100	5%	Acceptable					100	-100%	Fails	(±15)	45
RDX	7 86	8028	103 1000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
Pierie ACID	9 05	16980	205.1000	200	3%	Acceptable		9 05	25011	205 5000<	200	3%	Acceptable	(±15)	
1,3,5-Trinitrobenzene	10.21	15116	102.4000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
1,3-Dinitrobenzene	13.27	14453	103 5000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
TETRYL	14.34	9510	102 5000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
Nitrobenzene	15 20	6322	104.2000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2,4,6-1 mutrotolvene	16.57	9018	102 8000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17 56	6403	102.8000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18.63	7508	102 1000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,6-Duntrotoluene	20.35	5455	102.5000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	21 03	8726	101.9000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2-Nitrotoluene	24.79	3635	101.2000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
4-Nitrotoluene	26 61	4448	101 6000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
3-Nitrotoluene	28 63	4394	101 9000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
Nitroglycerin				100	-100%	Fails		15 82	6254	102 8000<	100	3%	Acceptable	(±15)	45
PETN				100	-100%	Fails		30 25	3304	103 1000<	100	3%	Acceptable	(±15)	45
3,5-Dinitroamline	14 02	9179	102 0000<	100	25%	Acceptable					100	-100%	Fails	(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails	(±15)	



Notes

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/7/2009 10:01 AM

#### A-000022.D

Chromatography Summary

Injection Date:

7/3/2009 9 11

1.010

Operator: fik

DataFile:

1.C10 I\07022009 B\A-000022 D

Vial Num: 4

Method 8330 Target Analyte Results

Instrument ID:

Sample:

STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Method File:

LC10 N07022009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 End Cal Date: 6/11/2009 13 47

Dilution Factor

Extract Volume

Sample Volume

Sample Weight

Matrix: Samp. Info:

NONE

SubList: CAL sub

SpikeList:

1X

0 mL

0 mL

θg

STD_6 09GC\$V0054 4K/ 2/ 2/.2/ 2;2

Misc. Info:

;6, : ; ;3;CAL sub. ,0,1

Signal 2 UV 358-205
---------------------

			Signal 1 U	JV 250-2	65					Signal 2 UV	358-205				
Compound Name	R'f	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Leyel	%D	Result	Flag Limits(%)	Fla
3,4-Dinstrotoluene	18 24	9589	203 3000<	200	2%	Acceptable		18 23	18290	211,6000	200	6%	Acceptable	(±15)	
нмх	5.30	25440	210.6000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
RDX	7.87	16268	208 8000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
Picac ACID	9 04	42655	515.3000	500	3%	Acceptable		9 04	62723	\$15 5000<	500	3%	Acceptable	(±15)	
,3,5-Tranitrobenzeae	10 22	30282	205 1000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
1,3.Dinitrobenzene	13.29	28991	207.5000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	14 35	19191	206 8000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	15 21	12738	209.9000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
2,4.6-Trinitrotoluene	16.58	18022	205 5000<	200	3.2	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17 58	12828	205,9000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18 65	15059	204 7000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dinitrotoluene	20.38	10882	204 4000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dinitrololuene	21 10	17483	204,2000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2-Nurotoluene	24.82	7294	203 0000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
4-Nitrotoluene	26.64	8876	202.6000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
3-Nitrotoluene	28.67	8836	204 9000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
Nitroglyceriu				200	-100%	Fails		15 84	12481	205.2000<	200	3%	Acceptable	(±15)	45
PETN				200	-100%	Fails		30 27	6681	208 4000<	200	4%	Acceptable	(±15)	45
3,5-Dinitroaniline	14.03	18458	205 1000<	200	3%	Acceptable						-100%	Fails	(±15)	45
EGDN				200	-100%	Fails						-100%	Fails	(±15)	

Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/7/2009 10:10 AM

23LCMW 03DW

A-000009.D

Chromatography Summary

Injection Date:

7/2/2009 22 13

Operator: fik

Vial Num:

Method 8330 Target Analyte Results

DataFile: Instrument ID:

LC10

Sample:

LFRD61AC 9182192 G9F270189-1 1X Method File:

LC10.N07022009.B\\$330AB M

LC10 1\07022009 B\A-000009 D

Start Cal Date:	6/10/2009 15 33	End Cal Date:	6/11/2009 13:47	
Dilution Factor	Extract Volume	Sample Volume	Sample Weight	

Matrix:

WATER

SubList: WATER sub

SpikeList:

Samp, Info:

LFRD61AC 9182192 G9F270189-1 TX,0,

1X 20 mL 985.56 mL

Mise. Info:

.,985.56,,20,1,WATER sub.,0,1,LFRD61AC

Signal 1 UV 250-265

Signal	2	HV	358.	205

Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	13.26	0.020	6229	2.6800<		18.25	0.014	11996	2.8160	(	0.0000	0.00	
HMX										(	0 0274	010	
RDX										(	0 0660	0 10	
Pierte ACID										(	0 1268	1.01	
1,3,5-Trantrobenzene	10 14	-0 090	256	0 0352<						(	0 0315	0 10	45
1,3-Dinitrobenzene										(	0 0507	010	
TETRYL										(	0 0507	010	
Nitrobenzene										(	0 0507	010	
2,4,6-Transtrotoluene										(	0 0244	0.10	
4-AM-2,6-DNT							$\Omega_{i}$			C	0.0223	010	
2-AM-4,6-DNT							NV			Ç	1015	0 20	
2,6-Dmittotoluene							-			G	0507	010	
2,4 Dinitrotolitene										0	0.0507	010	
2-Nitrotoluene										0	0731	0.51	
4-Nitrotoluene										0	0731	051	
3-Nurotoluene										0	0629	0.51	
Nitroglycerin										0	.3348	0.66	
PETN										0	3044	0 66	
3,5-Dinitroaniline										0	0254	101	

	# 144 American France France France France France France France France France France France France France Fran						
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
						·	
3,4-Dinitrotoluene	2.5366	2.6800	106	2,5366	2.8160	111	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/7/2009 9:59 AM

23 KCMW 03 SW

A-000010.D

Chromatography Summary

Injection Date:

7/2/2009 23 03

1.C10

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: LC10 I\07022009 B\A-000010 D

Vial Num: 17

Sample:

LFRD71AC 9182192 G9F270189-2 1X

Method File:

LC10 I\07022009 B\8330AB M

Start Cal Date:

6/10/2009 15 33

End Cal Date:

6/11/2009 13:47

Matrix:

WATER

SubList: WATER.sub

**Dilution Factor** 

SpikeList:

Extract Volume

Sample Volume

Sample Weight

Samp. Info:

LFRD71AC 9182192 G9F270189-2 1X,0,

1X

20 mL

999,12 mL

0 g

Misc, Info:

"999 12;,20,1,WATER sub;,0,1,LFRD71AC

Signal 1 UV 250-265

Signal 2 UV 358-205

			Signal I UV 250-2	:05				Signal Z D V JJohn	20.5			
Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag MDL	RL	Fiag
3,4-Dinitrotoluenc	18.25	0.017	6242	2,6490<		18.25	0.010	11999	2.7780	0.0000	0.00	
HMX										0 0270	0.10	
RDX										0 0651	0.10	
Pierie ACID										0 1251	1.00	
1,3,5-Conitrobenzene	10.12	-0 103	275	0 0373<						0.0310	0.10	45
1,3-Dinitrobenzene										0 0500	0.10	
TETRYL										0 0500	0.10	
Nitrobenzene										0.0500	0 10	
2,4,6-Trinitrotoluene										0 0240	010	
4-AM-2,6-DNT				. 1						0 0220	0.10	
2-AM-4,6-DNT				N,	and the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th					0 1001	0.20	
2,6 Dinitrotoluene				·						0.0500	0.10	
2,4 Dinitrotoluene										0.0500	0 10	
2-Nitrotoluene										0 0721	0.50	
4-Nitrotoluene										0.0721	0.50	
3-Nitrotoluene										0 0621	0.50	
Nitroglycerm										0 3303	0 65	
PEIN										0 3003	0.65	
3,5-Dinitroaniline										0.0250	1.00	

		····					
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3.4-Dinitrotoluene	2,5022	2.6490	106	2.5022	2.7780	111	(79-111)

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

23KC MWO2DW

A-000011.D

Chromatography Summary

Injection Date:

7/2/2009 23 54

Operator: fik

Vial Num: 18

Method 8330 Target Analyte Results

Instrument ID:

LC10

Sample:

LFRD81AC 9182192 G9F270189-3 1X

Method Pile:

DataFile:

LC10 I\07022009 B\8330AB M

LC10 I\07022009 B\A-000011 D

Start Cal Date:

6/10/2009 15:33

End Cal Date:

6/11/2009 13 47

Matrix: Samp, Info:

SubList: WATER.sub

SpikeList:

Dilution Factor

Sample Volume

Sample Weight

WATER

LFRD81AC 9182192 G9F270189-3 1X;0;

1X

Extract Volume 20 mL

991.73 mL

0 g

Misc. Info:

,,991.73;;20,1,WATER sub,;0 1,LFRD81AC

Sienal	1	T 13/	250	265

Signal 2 UV 358-205	Signa	12	UΥ	358-205
---------------------	-------	----	----	---------

Compound Name	RТ	Diff	Response	Conc (ug/L)	Flag	RT	DIN	Response	Cone (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.23	-0.013	6156	2.6320<	7714	18,23	-0.016	12094	2,8210		0.0000	0.00	
нмх											0 0272	010	
RDX											0.0655	0.10	
Pione ACID											0 1260	101	
1,3,5-Trinitrobenzene	10.16	-0 073	248	0 0339<							0 0313	0 10	45
1,3-Dinitrobenzene											0 0504	0 10	
TETRYL											0.0504	040	
Nitrobenzene											0 0504	0 10	
2,4.6-Trinitrotoliiene											0 0242	0.10	
4 AM-2,6-DNT											0 0232	0 10	
2-AM-4,6-DNT											0 1008	020	
2,6-Dinttrotoluene									$\wedge$		0 0504	0 10	
2,4-Dimtrotoluene							_	*	, 🔎		0.0504	010	
2-Nitrotoluene	24 84	0 011	348	0.1953<		~	N- (	mhon	CO		0.0726	0.50	45
4-Nitrotoluene						11		infra			0 0726	0.50	
3-Nitrotolnene							,	. 1			0.0625	0.50	
Nîtroglycerin								U			0 3328	0 66	
PETN											0.3025	0.66	
3,5-Diatrosnilme											0 0252	1.01	

Surrogates:	Spiked		% Rec	 Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2,5208	2,6320	104	 2.5208	2.8210	112	(79-111)

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

234(MW025W

#### A-000013.D

Chromatography Summary

Injection Date:

7/3/2009 1:36

LC10

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID:

LC10 I\07022009 B\A-000013 D

Vial Num: 19

Sample:

LFRD91AC 9182192 G9F270189-4 1X

Method File:

1,C10 I\07022009,B\8330AB,M

tart Cal Date:	6/10/2009 15 33	End Cal Date:	6/11/2009 13.47
Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1 X	20 mř.	996.78 mL	Λα

Samp. Info:

WATER

SubList: WATER sub

SpikeList:

Mise, Info:

Matrix

LFRD91AC 9182192 G9F270189-4 1X,0,

,;996.78,;20,1;WATER sub;;0;1;LFRD91AC

Signal I UV 250-265 Signal 2 UV 358-205

			Digital 1 O 7 230-2	· · · · · · · · · · · · · · · · · · ·				Signal 2 O V SSG-2	.0.7				
Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.23	0.017	6192	2.6340<		18.23	-0.010	11918	2,7660		0.0000	0.00	
НМХ											() 0271	0.10	
RDX											0 0652	0 10	
Pierre ACID										1	0 1254	1 00	
1 3.5-Transtrobenzene	10 13	-0 086	271	0.0368<						1	0 0311	010	45
1,3-Dinitrobenzene											0 6502	0 10	
TETRYL											0 0502	0.10	
Nitrobenzene										(	0 0502	0.10	
2,4.6-Trimtrotolvene										1	0 0241	010	
4 AM-2,6-DNT							^			(	0 0221	010	
2-AM-4,6-DNT							(1/1			(	0 1003	0 20	
2,6-Dinitrotoluene							100			(	0 0502	0 10	
2.4-Dinitrotoluene										(	0.0502	010	
2-Nitrotoluene										(	0722	0.50	
4-Nitrotoluene										(	0722	0,50	
3-Nitrotoluene										C	0.0622	0.50	
Nitroglycerin										(	3311	0 65	
PETN										0	3010	0 65	
3,5-Dmitroaniline										O	0.0251	1.00	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	% Rec	Limits
3,4-Dinitrotoluene	2,5081	2,6340	105	2.5081	2.7660	110	(79-111)

Notes.

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

23L(MWO 10W)

#### A-000014.D

Chromatography Summary

Injection Date:

7/3/2009 2 27

Operator: fik

Method 8330 Target Analyte Results

DataFile:

1.C10 I\07022009 B\A-000014.D

Yial Num: 20

Instrument ID;

LC10

Sample:

LFREA1AC 9182192 G9F270189-5 1X Method File:

und Out Dat

LC10 T/07022009 B/8330AB M

Start Cal Date:

6/10/2009 15 33

End Cal Date:

6/11/2009 13 47

Matrix: WATER

SubList: WATER sub

SpikeList:

Dilution Factor

Extract Volume

Sample Volume

Sample Weight

Samp. Info:

LFREATAC 9182192 G9F270189-5 1X,0,

1X

20 mL

985.33 ml,

0 g

Mise. Info:

"985.33,;20.1,WATER sub,,0;1:LFREAJAC

Signal 1 UV 250-265

Signal 2 UV 358-205

Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag MDL	RL	Flag
3,4 Dinitrotoluene	18.25	0,034	6173	2,6560<		18.24	9.003	11870	2.7870	0.0000	0.00	
HMX										0 0274	0.10	
RDX										0,0660	0.10	
Picrie ACID										0 1269	101	
1.3,5-Trinitrobenzene	10 13	-0.086	274	0 0377<						0 0315	0 10	45
1,3-Dimtrobenzene										0 0507	010	
TETRYL										0 0507	0.10	
Nitrobenzene								^		0 0507	010	
2,4,6-Trimtrotolueno								UKA		0 0244	0.10	
4 AM-2,6-DNT								(3.		0 0223	0.10	
2-AM-4,6-DNT										0 1015	0.20	
2,6-Dinstrotoluene										0.0507	0.10	
2,4-Dinitrotoluene										0.0507	0.10	
2-Nitrotoluene										0 0731	0 51	
4-Nitrotolueno										0 0731	0.51	
3-Nitrotoluene										0 0629	0.51	
Nitroglycerin										0 3349	0 66	
PETN						30 09	-0 166	Daving 536	0 3394< /	(I) 0 3045	0.66	45
3,5-Dinitroaniline								•		104 0 0254	1.01	

Surrogatest	Splked	Recovered	%Rec	Spiked	Recovered	%Rcc	Limits
3,4-Dinitrotoluene	2.5372	2.6560	105	2,5372	2.7870	110	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

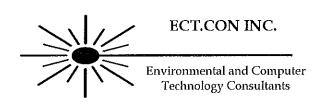
Printed: 7/7/2009 10:02 AM

Data Validation Report

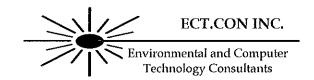
Michael Baker Jr., Inc

Camp Bonneville

SDG#: PSF0891



3531 Fox Chase Drive Imperial, PA 15126 (724) 695-8042 FAX (724) 695-2698 e-mail: ectconinc@comcast.net



### **Data Validation Report**

SDG#	PSF0891
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

outipies/intatrix.							
Date	Location	Portland ID	Sacramento	Explosives	Matrix		
Sampled			ID				
06/25/09	23LCMW01SW	PSF0891-01	LFV9A	Х	Aqueous		
06/25/09	23LF4MW17SW	PSF0891-02	LFV9G	Х	Aqueous		
06/25/09	23LF4MW18SW	PSF0891-03	LFV9J	Х	Aqueous		
06/26/09	23LF4MW7B	PSF0891-04	LFV9K	Х	Aqueous		
06/26/09	23LF4MW5A	PSF0891-05	LFV9M	Х	Aqueous		

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

### SUMMARY

The sample set for the Camp Bonneville site consists of five aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

- Data Completeness
- * Holding Times
- Calibration (Initial and Continuing)
  - Blanks
- System Monitoring Compounds (Surrogate Spikes)
- Matrix Spike/Matrix Spike Duplicates
  - Laboratory Control Standard Results
- * Target Compound Identification
- Compound Quantification and Reported Contract Quantitation Limits

* • System Performance

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

### **FINDINGS**

### 1. Blanks

The laboratory method blank exhibited contamination for the following parameter:

ĺ	Blank	Compound	Maximum	Action Limit	Action
İ			Concentration	(ppm)	
-			(ppb)		
	LFW791	1,3,5-Trinitrobenzene	0.039	0.195	U sample results < RL

RL - reporting limit

### 2. Laboratory Control Sample Results

Recovery of HMX (120%) and RDX (127%) exceeded the laboratory's upper quality control limits. In the following sample, positive results for HMX and RDX were qualified as estimated "J".

23LF4MW5A

### **NOTES**

### Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was performed on sample 23LF4MW7B. Recovery of 13 out of 17 compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the unspiked sample. Data were not qualified on this basis.

### **Laboratory Control Sample Results**

Recovery of 12 out of 17 compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the associated samples. Data were not qualified on this basis.

### Field Duplicate Results

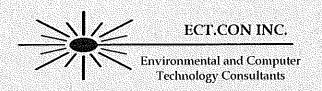
No field duplicates were included with this SDG. Data were not qualified on this basis.

Data Reviewer Date

^{*} Criteria were met for this evaluation item.

### Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to confirm its presence or absence in future sampling efforts.
R UR	Unusable Result. Unusable Result.	Analyte may or may not be present in the sample.  Analyte may or may not be present in the sample.



# Annotated Form 1's (Spreadsheet)

### Client Sample ID: PSF0891-01

HPLC

SSK MMOKIN

Lot-Sample #...: G9F300242-001 Work Order #...: LFV9A1AC Matrix....: WATER Date Sampled...: 06/25/09 Date Received..: 06/30/09 Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192

Dilution Factor: 0.98 Method.....: SW846 8330

		REPORTING	<del>)</del>	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.98	ug/L	0.12
2-Amino-4,6-	NID	0.20	ug/L	0.098
dinitrotoluene				
4-Amino-2,6-	ND	0.098	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	CIM	0.098	ug/L	0.049
2,4-Dinitrotoluene	ND	0.098	ug/L	0.049
2,6-Dinitrotoluene	ND	0.098	ug/L	0.049
HMX	ND	0.098	ug/L	0.026
Nitrobenzene	ND	0.098	ug/L	0.049
2-Nitrotoluene	ИD	0.39	ug/L	0.071
3-Nitrotoluene	ND	0.39	ug/L	0.061
4-Nitrotoluene	ND	0.49	ug/L	0.071
RDX	ND	0.098	ug/L	0.064
Tetryl	ND	0.098	ug/L	0.049
1,3,5-Trinitrobenzene	$0.032  J_r B$	0.098 💍	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.098	ug/L	0.024
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	1.04	(79 - 111	)	

### NOTE(S):



J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

### Client Sample ID: PSF0891-02

HPLC

3727-WM128M

Lot-Sample #: G9F300242-002 Date Sampled: 06/25/09 Prep Date: 07/01/09 Prep Batch #: 9182192	Work Order #: Date Received: Analysis Date:	06/30/09	Matrix	WATER
Dilution Factor: 1.02	Method:	SW846 8330	i .	
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.66	ug/L	0.15
PETN	ND	0.66	ug/L	0.23
Picric Acid	ND	1.0	ug/L	0.13
2-Amino-4,6-	ND	0.20	ug/L	0.10
dinitrotoluene 4-Amino-2,6- dinitrotoluene	ND	0.10	ug/L	0.022
1,3-Dinitrobenzene	ND	0.10	ug/L	0.051
2,4-Dinitrotoluene	ND	0.10	ug/L	0.051
2,6-Dinitrotoluene	ND	0.10	ug/L	0.051
HMX	ND	0.10	ug/L	0.028
Nitrobenzene	ND	0.10	ug/L	0.051

0,41

0.41

0.51

0.10

0.10

0.10

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

0.073

0.063

0.073

0.066

0.051

0.032

0.024

2,4,6-Trinitrotoluene	ND	0.10
	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
3,4-Dinitrotoluene	105	(79 - 111)

ND

ND

ND

ND

ND

0.035 J,B

### NOTE(S):

RDX

Tetryl

2-Nitrotoluene

3-Nitrotoluene

4-Nitrotoluene

1,3,5-Trinitrobenzene

while

J Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

### Client Sample ID: PSF0891-03

HPLC

23LF4MW 186W

<pre>Lot-Sample #: G9F300242-003 Date Sampled: 06/25/09 Prep Date: 07/01/09 Prep Batch #: 9182192</pre>	Work Order #: Date Received: Analysis Date:	06/30/09	Matri	× WATER
Dilution Factor: 0.98	Method:	SW846 8330	)	
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.98	ug/L	0.12
2-Amino-4,6-	ND	0.20	ug/L	0.098
dinitrotoluene			4	
4-Amino-2,6-	ND	0.098	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.098	ug/L	0.049
2,4-Dinitrotoluene	ND	0.098	ug/L	0.049
2,6-Dinitrotoluene	ND	0.098	ug/L	0.049
HMX	ND	0.098	ug/L	0.026
Nitrobenzene	ND	0.098	ug/L	0.049
2-Nitrotoluene	ND	0.39	ug/L	0.073.
3-Nitrotoluene	ND	0.39	ug/L	0.061
4-Nitrotoluene	ND	0.49	ug/L	0.071
RDX	ND	0.098	ug/L	0.064
Tetryl	ND	0.098	ug/L	0.049
1,3,5-Trinitrobenzene	9-037-J ₇ B	0.098 🔾	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.098	ug/L	0.024
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	103	(79 - 111)		

NOTE(S):

Polytor

J Estimated result Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level

Client Sample ID: PSF0891-04

HPT.C

Brum PZIES

Lot-Sample #...: G9F300242-004 Work Order #...: LFV9K1AC Matrix..... WATER

Date Sampled...: 06/26/09 Date Received..: 06/30/09 Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192

Dilution Factor: 0.97 Method.....: SW846 8330

		REPORTING	<del>)</del>	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-	ND	0.19	ug/L	0.097
dinitrotoluene				
4-Amino-2,6-	ND	0.097	ug/L	0.021
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048
HMX	ND	0.097	ug/L	0.026
Nitrobenzene	ND	0.097	ug/L	0.048
2-Nitrotoluene	ND	0.39	ug/L	0.070
3-Nitrotoluene	ND	0.39	ug/L	0.060
4-Nitrotoluene	ND	0.48	ug/L	0.070
RDX	ND	0.097	ug/L	0.063
Tetryl	ND	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	-0:035-J ₇ B-	0.097 🐸	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	98	(79 - 111	)	

### NOTE(S):

While

J. Estimated result. Result is less than RL.

B Method blank contamination. The associated method blank contains the target analyte at a reportable level,

Client Sample ID: PSF0891-05

7.1GH

28LF4MW5A

Lot-Sample #...: G9F300242-005 Work Order #...: LFV9M1AC Matrix..... WATER

Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192

Dilution Factor: 0.98 Method.....: SW846 8330

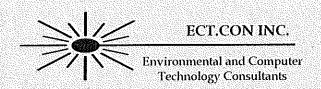
		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0.64	ug/L	0.23
Picric Acid	ND	0.98	ug/L	0.12
2-Amino-4,6-	ND	0.20	ug/L	0.098
dinitrotoluene				
4-Amino-2,6-	ND	0.098	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.098	ug/L	0.049
2,4-Dinitrotoluene	ND	0.098	ug/L	0.049
2,6-Dinitrotoluene	ND	0.098	ug/L	0.049
HMX	0.25 T	0.098	ug/L	0.026
Nitrobenzene	ND	0.098	ug/L	0.049
2-Nitrotoluene	ND	0.39	ug/L	0.071
3-Nitrotoluene	ND	0.39	ug/L	0.061
4-Nitrotoluene	ND	0.49	ug/L	0.071
RDX	4.1.3	0.098	ug/L	0.064
Tetryl.	ND	0.098	ug/L	0.049
1,3,5-Trinitrobenzene	0.038 J,B	0.098 🔰	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.098	ug/L	0.024
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	105	(79 - 111)		

### NOTE(S):



J Estimated result. Result is less than RL

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.



# Support Documentation

# Laboratory Case Narrative



### DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc. James D. Peyton 5261 Fountain Drive, Suite A Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater Client Project Number: 110002 Task 6200

TA Work Order#: PSF0891

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

187

July 31, 2009

TestAmerica - Portland 9405 S. W. Nimbus Avenue Beaverton, Oregon 97008 (503) 906-9200 (503) 906-9210



### **CASE NARRATIVE**

Client:

Michael Baker Jr., Inc.

110002 Task 6200

Date Sampled:

6/25/2009 to

6/26/2009

Project:

Camp Bonneville Groundwater

**Date Received:** 

6/26/2009

Lab:

PSF0891

SAMPLE RECEIPT:

Samples were received intact, on ice, with chain of custody

documentation. The sample temperature was measured at 0.2 and 2.0 °C

upon receipt at the laboratory.

HOLDING TIMES:

All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED:

No problems were encountered.

QA/QC CRITERIA:

1,2,3-Trichlorobenzene was detected at a concentration less than the MRL but greater than one-half of the MRL in the associated method blank (9070189-BLK1) for EPA 8260B samples PSF0891-02, PSF0891-03, and PSF0891-04. The concentration for the specified analyte in all client

samples was ND.

**OBSERVATIONS:** 

EPA 8260B sample PSF0891-01was prepared in batch 9070189,

analyzed on 07/08/09, but was not reported due to suspected

contamination caused by carry-over from a previously analyzed sample. The specified sample was re-prepared in batch 9070249, designated

"RE1," analyzed on 07/09/09, and reported.

SUBCONTRACTED:

314.0 9196313 (Perchlorate), 314.0_9196314 (Perchlorate), and SW846

8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is

Included in this data deliverables package as Appendix A.



THE LEADER IN ENVIRONMENTAL TESTING

Michael Baker Jr., Inc.

Crown Point, IN 46307

5261 Fountain Drive, Suite A

PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

Project Name: Camp Bonneville Groundwater

Project Number: 110002 Task 6200

Report Created: 07/21/09 13:15

Project Manager: James D. Peyton 07/21/09 13:15

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23LCMW01SW	PSF0891-01	Water	06/25/09 16:30	06/26/09 16:50
23LF4MW17SW	PSF0891-02	Water	06/25/09 18:00	06/26/09 16:50
23LF4MW18SW	PSF0891-03	Water	06/25/09 19:00	06/26/09 16:50
23LF4MW7B	PSF0891-04	Water	06/26/09 10:30	06/26/09 16:50
23LF4MW5A	PSF0891-05	Water	06/26/09 13:45	06/26/09 16:50
TB261	PSF0891-06	Water	06/26/09 00:00	06/26/09 16:50

TestAmerica Portland

Estella Rieben, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



July 28, 2009

TestAmerica Project Number: G9F300242

PO/Contract: PSF0891

Estella Rieben TestAmerica Portland Nimbus Corporate Center 9405 SW Nimbus Ave Beaverton, OR 97008

Dear Ms. Rieben,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on June 30, 2009. These samples are associated with your Michael Baker Jr., Inc. project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,

Linda C. Laver

Sunda O Farne

Project Manager

### **Case Narrative**

### TestAmerica West Sacramento Project Number G9F300242

### WATER, 8330, Nitroaromatics & Nitramines

Samples: 1, 2, 3, 4, 5

The laboratory control sample (LCS) associated with this extraction batch has percent recoveries for most analytes above the established control limits indicating a potential high bias in the data. Samples 1, 2, 3, and 4 do not have detected concentrations above the reporting limit for these analytes and there is no adverse impact upon the data. Sample 5 does have detected concentrations for HMX and RDX. This was not discovered until after the recommended hold time for extraction had expired. After consulting with Ms. Rieben, the sample was not re-extracted and the analytical results are included in this report.

The matrix spike/matrix spike duplicate (MS/MSD) associated with this extraction batch also has recoveries and/or precision is outside the established control limits for many analytes. This anomaly is most likely matrix related.

There are no other anomalies associated with this project.

### Sample Summary

### TestAmerica West Sacramento Project Number G9F300242

<u> WO#</u>	Sample #	Client Sample ID	Sampling Date	Received Date
LFV9A	1	PSF0891-01	6/25/2009 04:30 PM	6/30/2009 09:00 AM
LFV9G	2	PSF0891-02	6/25/2009 06:00 PM	6/30/2009 09:00 AM
LFV9J	3	PSF0891-03	6/25/2009 07:00 PM	6/30/2009 09:00 AM
LFV9K	4	PSF0891-04	6/26/2009 10:30 AM	6/30/2009 09:00 AM
LFV9M	5	PSF0891-05	6/26/2009 01:45 PM	6/30/2009 09:00 AM

### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

# Chain of Custody

# **TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy S Sone 100; Bethalt, Wyssert 8244

505-420-9700 EAN (2010210) | S00-024-0200 EAN (201024-0200) Act and the second of the second second 101 1105 92361 13 Nov. 3, 40 11022 E. Files, Ave. Starkung, W.A. Google, 5302 ेल में कर किया, ध्रिहर प्रकार Martin M. Bes MARIN DEL CHARACT APPARENT

TA WO JD DATE: 6 (26) Innuaround Requests less then standard may incur Rush Charge Work Order #: PSFD89 TURNAROUND REQUEST NO TICS TIME: TIME, LOCATION/ COMMENTS DATE in Bushness Days . OTHER Specify: MATRIX # OF 3 CHAIN OF CUSTODY REPORT RECEIVED BY: PRINT NAME: PRINT NAME REQUESTED ANALYSES PRESERVATIVE べいとは二 INVOICE TO: 3 SOLVERY 60/9m/3 P.O. NUMBER DATE: TIME × × X スプと vane Jaker Occur Point In 40 6 1 231 CMUDISW 16/05/09-1630 64 Mw 1851 2510 8 1900 PROJECT NAME: CO. 1747 B. 117EX. 11/E ADDRESS D. Vel For otalin Prive, 6UMETO 00 100 90 acia Jun es GLIENT: M.chael Bruker J. REPORT TO: Margariet Journa SAMPLED BY: Margaret STLFYMUSA CLIENT SAMPLE IDENTIFICATION जिट्ट | ADDITIONAL REMARKS RELEASED BY: RELEASED BY: PRINT NAME: PRINT NAME.

TAL: LOOD(0,10%)

# TestAmerica Portland Sample Receiving Checklist

	k Ord nt Nai		e: PSF089   Date/Time Received: 4/20/09 1650 and Project: Michael De. Kel _ Camp Borne VIIIe GV					
	Zone: OT/ES		□CDT/CST □MDT/MST □PDT/PST □AK □OTHER					
Co	oler #( peratur	s): es: <u>[</u>	Temperature out of Range:  Not enough or No Ice Ice Melted Win 4 Hrs of collection Other:					
N/A	Yes	No	Initials: <u>f</u> S					
			1. If ESI client, were temp blanks received? If no, document on NOD.					
			2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.					
	I		3. Chain of Custody present? If no, document on NOD.					
			4. Bottles received intact? If no, document on NOD.					
			5. Sample is not multiphasic? If no, document on NOD.					
			6. Proper Container and preservatives used? If no, document on NOD.					
			7. pH of all samples checked and meet requirements? If no, document on NOD.					
			8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.					
			9. HF Dilution required?					
			10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding.					
			11. Did chain of custody agree with samples received? If no, document on NOD.					
			12. Is the "Sampled by" section of the COC completed?					
			13. Were VOA/Oil Syringe samples without headspace?					
	Ø		14. Were VOA vials preserved? ☐ HCl ☐ Sodium Thiosulfate ☐ Ascorbic Acid					
			15. Did samples require preservation with sodium thiosulfate?					
			16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.					
			17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.					
			<ul><li>18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding.</li><li>19. Are analyses with short holding times received in hold?</li></ul>					
			20. Was Standard Turn Around (TAT) requested?					
	<u> </u>	П	21. Receipt date(s) < 48 hours past the collection date(s)? If no. notify PM.					

# TestAmerica Portland Sample Receiving Checklist

Work Order #: <u>FSF0891</u>

Log	in Cl	ks: Initials: BUE	,
N/A	Yes	o	
	$\boxtimes$	22. Sufficient volume provided for all analysis? If no, document on NOD & conta	ct PM
⋈		23. Sufficient volume provided for client requested MS/MSD or matrix duplicates	
		no, document on NOD and contact PM.	
		24. Did the chain of custody include "received by" and "relinquished by" signature	es.
	·	dates and times?	,
		25. Were special log in instructions read and followed?	
	Ð	26. Were tests logged checked against the COC?	
		27. Were rush notices printed and delivered?	
		28. Were short hold notices printed and delivered?	
	$\Box$	29. Were subcontract COCs printed?	
8		30. Was HF dilution logged?	
Labo	eling	d Storage Checks: Initials: PS	
N/A	Yes	)	
		31. Were the subcontracted samples/containers put in Sx fridge?	
		32. Were sample bottles and COC double checked for dissolved/filtered metals?	
	$\square$	33. Did the sample ID, Date, and Time from label match what was logged?	
		34. Were Foreign sample stickers affixed to each container and containers stored in	
		foreign fridge?	
		35. Were HF stickers affixed to each container, and containers stored in Sx fridge?	
		36. Was an NOD for created for noted discrepancies and placed in folder?	
Docum form (1	nent ar NOD)	roblems or discrepancies and the actions taken to resolve them on a Notice of Discrep	ancy



### LOT RECEIPT CHECKLIST TestAmerica West Sacramento

CLIENT	TOL -1	artland	PM U I	.og# <b>5</b> 9	265
LOT# (QUANTIMS IE	() <u>69F3</u>	021/2 QU	OTE# 83365	LOCATION_	WIB
			0950	Initials	Date <u>6/50/0</u> 9
DELIVERED BY	UPS	☐ GOLDENSTATE	☐ DHL	OURIEF	
		☐ BROKEN ☐ N			
SHIPPPING CONTAI TEMPERTURE RECO COC #(S)	NER(S) TAI ORD (IN °C) IR	15 70 4249 L □ CLIENT 4□ 5 □ □ C	□ N/A OTHER		
Observed: 2	Averag	red: Corrected  GUE A Corrected  ified from COC No	Average		
pH MEASURED	☐ YES	S ANOMALY	′ ⊿P N/A		
		NA			
SHORT HOLD TEST I	NOTIFICATION	WETO	PLE RECEIVING CHEM ØN/A ENCORESØN/A		
☐ METALS NOTIFIED	O OF FILTER/PRESE	RVE VIA VERBAL & EN	MAIL ZN/A		
		GOOD CONDITION WI ITAINERS, PRESERVA		***************************************	
CLOUSEAU	[ TEMPERAT	URE EXCEEDED (2°C	-6°C) ^{*1} [] N/A	_\	
WET ICE	BLUE ICE	GEL PACK NO	COOLING AGENTS US	_	I NOTIFIED

^{*1} Acceptable temperature range for State of Wisconsin samples is≤4°C

## Worksheets

### HOLDING TIMES

			Sacramento Lab			
SAMPLE DATE	SAMPLE ID	Portland LAB ID	ID	Matrix	Prep	Anal
06/25/09	23LCMW01SW	PSF0891-01	LFV9A	Aq	07/01/09	7/3/09 1X
06/25/09	23LF4MW17SW	PSF0891-02	LFV9G	Λq	07/01/09	7/3/09 1X
06/25/09	23LF4MW18SW	PSF0891-03	LFV9J	Aq	07/01/09	7/3/09 1X
06/26/09	23LF4MW7B	PSF0891-04	LFV9K	Aq	07/01/09	7/3/09 TX
06/26/09	23LF4MW5A	PSF0891-05	LFV9M	Ag	07/01/09	7/3/09 1X

7

days from collection to extraction

Sample Date

6/25/2009 Extract By 7/2/2009

Sample Date

days from collection to extraction

7/3/2009

6/26/2009

Extract By days fromextraction to analysis

Sample Date

7/1/2009

Extract By

8/10/2009

### TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client? Did Sample Form 1s match the target compound list Were required quantitation limits provided by the client? Did all compounds meet the required quantitation limits? No NA

No NA

### SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN 1	 DF	ACTION
AII IN				

Were surrogate RTs within windows established by the ICAL? Were there any transcription errors between the raw data and Form 2? Were laboratory acceptance limits used as the basis for validation?

Yes No 30-150

Did the laboratory provide CLP Form II or equivlaent?

Yes

### MW5A

SURR	AMOUNT FOUND	AMOUNT SPIKED	% R	F1
34-DNT A	2.588	2.5	103.5	105
34-DNT C	2.81	2.5	112.4	

### MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

		23LF41	MW7B			•
COMPOUND	MS %R	MSD %R	RPD	NATIVE	SPIKE	ACTION
pierie acid	ok	ok	35	ND		note
2-a-46-dnt	125	129	ok	ND		note
4-a-26-dnt	116	120	ok	ND		note
13dnben	125	130	ok	ND		note
24-dnt	120	124	ok	ND		note
26-dnt	122	125	ok	ND		note
hmx	118	120	ok	ND		note
nbz	121	124	ok	ND		note
3-nt	ok	115	ok	ND		note
4-nt	ok	116	ok	ND		note
rdx /	ok	129	ok	ND		note
tetryl ،	ok	106	ok	ND		note
135-tnb 1	ok	124	ok	ND		note
246-tnt	113	117	ok	ND		note

Were there any transcription errors between the raw data and Form 3?

RPD

No

Were laboratory acceptance limits used as the basis for validation?

Yes

Did the laboratory provide CLP Form III or equivlaent? Were chromatograms and quan reports present for all MS/MSDs? Yes Yes

-34.7

35.0

	l i	AMOUNT	AMOUNT		1
picric acid	AMOUNT FOUND	NATIVE	SPIKED	%R	Form 3
MS	3.41	0	4.91	69,5	70
MSD	4.85	0	4.92	98.6	99

Recovery = ((Amount Found-Amount Native)/Amount Spiked)*100

-34.9

RPD = ((MS-MSD)/((MS+MSD)/2))*100

### LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION
LFW791	12 of 17 HI	OK	NΛ	NΛ	J

### J HMX and RDX in 23LF4MW5A

Were laboratory acceptance limits used as the basis for validation? Did the laboratory provide CLP Form III or equivlaent? Were chromatograms and quan reports present for all LCS/LCDs?

Yes Yes Yes

LFW791 RDX

		AMOUNT		
12 of 17 HI	AMOUNT FOUND	SPIKED	% R	FORM 3
LCS	1.27	1	127.0	127

%R = (Amount Found/Amount Spiked)*100

### BLANKS

BLANK	COMPOUND	RESULT	5X 0R 10X	ACTION LEVEL	ACTION
LFW791	135-tnbz	0.039	5	0.195	U at RL

NOTE

Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

### CALIBRATION

Initial	
Are chromatograms and quan reports present for all ICAL standards?	Yes
Are CLP For VIs or equivalent present and complete?	Yes
Any transcription or calculation errors?	No
What linearity criteria was used?	20% RSD or 0.99
Were RT window documented?	Yes
Continuing	
Are chromatograms and quan reports present for all CCV standards?	Yes

Are CLP Form VIIs or equivalent present and complete?

Any transcription or calculation errors?

Any transcription or calculation errors?

What %D criteria was used?

Have all samples and standards been listed on an Analytical Sequence?

Yes

Was a proper analytical sequence followed?

Yes

### INITIAL CALIBRATION - A

Date	6/10/2009	Rptd Avg CF	77.89163	Rptd %RSD	5.156
Instrument	Α	Calcd Avg CF	77.892	Cald %RSD	5.156
Compound	RDX				
Reported CF	80.13	CFI	81.80	STD DEV	4
Calculated CF	80.42	CF2	75.90		
		CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
		CF6	80.13		
	CF ≃ (H/C)	CF7	69.168	%RSD = (Std Dev/	Avg CF)*100
		CF8	79.815		

### CONTINUING CALIBRATION A

Date	7/3/2009		
Time	0045		
Instrument	Α		
Compound	HMX		
Reported Conc	104.8	Rptd %D	5
Calculated Conc	103.835	Cald %D	-3.83
Response	12564	ICAL CF	100
CF	121	CCV CF	103.8

#12 12000

CF = (H/C) %Difference = ((ICAL - CCV)/ICAL)*100

### INITIAL CALIBRATION - C

Date	6/9/2009	Rptd Avg CF	42.55812	Rptd %RSD	4.852
Instrument	С	Calcd Avg CF	42,558	Cald %RSD	4.852
Compound	RDX				
Reported CF	42.585	CF1	45.40	STD DEV	2
Calculated CF	42.78	CF2	43.70		
		CF3	42.75		
Response	8556	CF4	43.30		
Conc	200	CF5	42.16		
		CF6	42.59		
	CF = (H/C)	CF7	38.118	%RSD = (Std Dev.	Avg CF)*100
		CF8	42.452		
CONTINUING CALIBI	RATION C				
Date	7/11/2009				

Date	7/11/2009		
Time	0554		
Instrument	С		
Compound	HMX		
Reported Conc	184.3	Rptd %D	8
Calculated Conc	184.280	Cald %D	7.86
Response	7594	ICAL CF	200
ĊF	41.20913	CCV CF	184.3

CF = (H/C) %Difference = ((ICAL - CCV)/ICAL)*100

### FIELD DUPLICATES

COMPOUND	SAMPLE	QUALIFIER	DUPLICATE	QUALIFIER	RPD
PCA			<u> </u>		#DIV/0!

NOTES Samples are not qualified on this basis.

### COMPOUND IDENTIFICATION AND QUANTITATION

Has a F10 been completed for every sample containing positive results?	Yes
Was RT data presented on the form?	NA
Are RTs within the established winodws?	Yes
Any transcription or calculation errors?	No
Any false positives, negative peaks, shouldering, etc.?	No
Was GCMS confirmation needed for results > 10 μg/ml?	NA
Were percent differences or relative percent differences calculated?	NA
Are percent differences/RPDs greater than 25%?	NA
Are there any transcription errors?	No
Are Form Is present for all field and quality control samples?	No
Are chromatograms and quan reports present for all samples?	Yes
Are RLs adjusted to reflect sample dilutions, percent solids, etc.?	Yes
For soils, any precent solids <50%?	No
For soils, any precent solids <10%?	No

### 23LF4MW5A RDX 0.4.1 μg/L

	Α	C
response	16156	8165
¢f	77.89163	42.55812
final vol ml	20	20
initial L	1.01672	1.01673
df	t	1
calculated	4.0801	3.7740

### PERCENT DIFFERENCE BETWEEN COLUMNS

SAMPLE	COMPOUND	A	C	RPD	QUALIFIER
23LF4MW5A	HMX	0,246	0.2052	18.1	none
	RDX	4.08	3.774	7.8	none

### MATRIX SPIKE SAMPLE EVALUATION REPORT

### HPLC

Client Lot #...: G9F300242 Work Order #...: LFV9K1AF-MS Matrix..... WATER

MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

Date Sampled...: 06/26/09 Date Received..: 06/30/09
Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192
Dilution Factor: 0.98

231F4NW 7B (NB)

	PERCENT	RECOVERY	i.	RPD	
PARAMETER	RECOVERY	LIMITS	RPD	LIMITS	METHOD
Nitroglycerin	106	(85 - 115)		-	SW846 8330
	108	(85 - 115)	2.0	(0-15)	SW846 8330
PETN	110	(84 - 117)			SW846 8330
	111	(84 - 117)	0.90	(0-15)	SW846 8330
Picric Acid	70	(21 - 118)	· ·		SW846 8330
	99 p	(21 - 118)	$\sqrt{35}$	(0-20)	SW846 8330
2-Amino-4,6-	125 a	(77 - 123)	Management of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the		SW846 8330
dinitrotoluene					
	129 a	(77 - 123)	3.4	(0-27)	SW846 8330
		(00 00)			avva.4.c. 0000
4-Amino-2,6-	116 a	(68 - 113)			SW846 8330
dinitrotoluene					
	120 a	(68 - 113)	3.0	(0-30)	SW846 8330
1,3-Dinitrobenzene	125 a	(72 - 123)			SW846 8330
1,5 Santoronoment	130 a	(72 - 123)	4.1	(0~29)	SW846 8330
2,4-Dinitrotoluene	120 a	(70 - 119)	***	(0 25)	SW846 8330
	124 a	(70 - 119)	2.9	(0-30)	SW846 8330
2,6-Dinitrotoluene	122 a	(71 - 119)	2.2	(0 00)	SW846 8330
2,5 52112020020000	125 a	(71 - 119)	2.9	(0-29)	SW846 8330
нмх	118 a	(67 - 115)	2.5	(0 2.5)	SW846 8330
<del></del> -	120 a	(67 - 115)	1.4	(0~32)	SW846 8330
Nitrobenzene	121 a	(69 - 119)		( )	SW846 8330
	124 a	(69 - 119)	2.5	(0~31)	SW846 8330
2-Nitrotoluene	117	(64 ~ 120)			SW846 8330
	113	(64 ~ 120)	2.7	(0-36)	SW846 8330
3-Nitrotoluene	113	(67 - 114)			SW846 8330
	115 a	(67 - 114)	2.0	(0-31)	SW846 8330
4-Nitrotoluene	114	(67 - 115)		•	SW846 8330
	116 a	(67 - 115)	2.3	(0-32)	SW846 8330
RDX	121	(68 - 122)			SW846 8330
	129 a	(68 - 122)	6.3	(0-32)	SW846 8330
Tetryl.	102	(66 - 105)			SW846 8330
•	106 a	(66 - 105)	4.2	(0-26)	SW846 8330
1,3,5-Trinitrobenzene	119	(74 - 120)		-	SW846 8330
• •	124 a	(74 - 120)	4.3	(0-29)	SW846 8330
2,4,6-Trinitrotoluene	113 a	(69 - 111)		•	SW846 8330
• •	117 a	(69 - 111)	3.4	(0-28)	SW846 8330

(Continued on next page)

### MATRIX SPIKE SAMPLE EVALUATION REPORT

### HPLC

Client Lot #...: G9F300242

Work Order #...: LFV9K1AF-MS

Matrix..... WATER

MS Lot-Sample #: G9F300242-004

LFV9K1AG-MSD

 SURROGATE
 RECOVERY
 LIMITS

 3,4-Dinitrotoluene
 104
 (79 - 111)

 107
 (79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

p Relative percent difference (RPD) is outside stated control limits

a Spiked analyte recovery is outside stated control limits.

### MATRIX SPIKE SAMPLE DATA REPORT

### HPLC

Client Lot #...: G9F300242 Work Order #...: LFV9K1AF-MS Matrix..... WATER

MS Lot-Sample #: G9F300242-004 LFV9K1AG-MSD

Date Sampled...: 06/26/09 Date Received..: 06/30/09 Prep Date....: 07/01/09 Analysis Date..: 07/03/09

Prep Batch #...: 9182192 Dilution Factor: 0.98

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	AMOUNT	AMT	TUUOMA	UNITS	RECVRY	RPD	METHOD
Nitroglycerin	ND	4,91	5.19	ug/L	106		SW846 8330
	ND	4.92	5.29	ug/L	108	2.0	SW846 8330
PETN	ND	4.91	5.41	ug/L	110		SW846 8330
	ND	4.92	5.46	ug/L	111	0.90	SW846 8330
Picric Acid	ND	4.91	3.41	ug/L	70		SW846 8330
	ND	4.92	4.85	սց/Ն	99 p	35	SW846 8330
2-Amino-4,6-	ND	0.982	1.22	ug/L	125 a		SW846 8330
dinitrotoluene							
	ND	0.983	1.26	ug/L	129 a	3.4	SW846 8330
4-Amino-2,6- dinitrotoluene	ND	0.982	1.14	սց/ն	116 a		SW846 8330
difficionadia	ND	0.983	1.18	ug/L	120 a	3.0	SW846 8330
1,3-Dinitrobenzene	ND	0.982	1.23	սց/ւ	125 a		SW846 8330
•	ND	0.983	1.28	ug/L	130 a	4.1	SW846 8330
2,4-Dinitrotoluene	ND	0.982	1.18	ug/L	120 a		SW846 8330
•	ND	0.983	1.22	ug/ւ	124 a	2.9	SW846 8330
2,6-Dinitrotoluene	CIN	0.982	1.19	ug/L	122 a		SW846 8330
, , , , , , , , , , , , , , , , , , , ,	ND	0.983	1.23	ug/L	125 a	2.9	SW846 8330
HMX	ND	0.982	1.16	ug/L	118 a		SW846 8330
	ND	0.983	1.18	ug/L	120 a	1.4	SW846 8330
Nitrobenzene	ND	0.982	1.19	սց/Ն	121 a		SW846 8330
	ND	0.983	1.22	ug/L	124 a	2.5	SW846 8330
2-Nitrotoluene	ND	0.982	1.14	ug/L	117		SW846 8330
	ND	0.983	1.11	ug/L	113	2.7	SW846 8330
3-Nitrotoluene	ND	0.982	1.11	ug/Ľ	113		SW846 8330
	ND	0.983	1.14	ug/ь	115 a	2.0	SW846 8330
4-Nitrotoluene	ND	0.982	1.12	ug/L	114		SW846 8330
	ND	0.983	1.14	սց/ե	116 a	2.3	SW846 8330
RDX	ND	0.982	1.19	սց/հ	121		SW846 8330
	ND	0.983	1,27	ug/L	129 a	6.3	SW846 8330
Tetryl	ND	0.982	0.998	ug/L	102		SW846 8330
	ND	0.983	1.04	ug/L	106 a	4.2	SW846 8330
1,3,5-Trinitrobenzene	0.035	0.982	1.20	ug/L	119		SW846 8330
	0.035	0.983	1,26	ug/L	124 a	4.3	SW846 8330
2,4,6-Trinitrotoluene	ND	0.982	1.11	ug/L	113 a		SW846 8330
	ND	0.983	1.15	ug/L	117 a	3.4	SW846 8330

(Continued on next page)

### MATRIX SPIKE SAMPLE DATA REPORT

### HPLC

Client Lot #...: G9F300242 Work Order #...: LFV9K1AF-MS

Matrix....: WATER

MS Lot-Sample #: G9F300242-004

LFV9K1AG-MSD

PERCENT RECOVERY SURROGATE RECOVERY LIMITS 3,4-Dinitrotoluene 104 (79 - 111) (79 - 111)107

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

- p Relative percent difference (RPD) is outside stated control limits.
- a Spiked analyte recovery is outside stated control limits

A-000019.D

Chromatography Summary

WATER

Injection Date:

7/3/2009 6:39

LC10 I\07022009.B\A-000019 D

Operator: fik

Vial Nun: 25

### Method 8330 Target Analyte Results

LFV9K1AF 9182192 G9F300242-4 S

DataFile: Instrument ID:

LCIO

Method File:

LC10 N07022009.B\8330AB M

End Cal Date:

Sample Volume

6/11/2009 13:47

1X

SubList: WATER.sub

SpikeList: WATER spl:

6/10/2009 15 33 Start Cal Date: Dilution Factor Extract Volume

Matrix:

Sample:

1X 20 mL 1018.28 mL

Sample Weight

Samp. Info: Misc. Info:

LFV9K1AF 9182192 G9F300242-4 S 1X;3;

LCS, 1018 28;;20;1;WATER sub,WATER spk,1,1,LFV9K1AF

			Şıgnal 1 UV	250-26	55					Signal 2 UV	/ 358-205					
Compound Name	RT	Response		spike Level	%R	Result	Flag	RT	Response	Conc (ug/L)	Spike Levei	%R	Result	Flag	Limits(%)	Flag
3,4 Dinitrotolucae	18 25	6156	2 5630< 2,	45512	104%	Acceptable		18.25	11586	7 6320	2 45512	107%	Acceptable	М	(79-111)	
HMX	5.30	7138	1.1600< o.9	982048	118%	Fails					0.982048	0%	Fails		(65-115)	45
RDX	7.88	4720	1 1900< _{0 9}	982048	151%	Acceptable					0.982048	0%	<b>Fails</b>		(68-122)	45
Piene ACID	9 09	14543	3 4510 4 9	910241	70%	Acceptable		9 09	21152	3 4140<	4 910241	70%	Acceptable		(21-118)	
1,3,5-Trinitrobenzene	10.24	9036	1.2020< 0.9	982048	122%	Fails					0.982048	0%	l ^r ails		(74-120)	45
1,3-Dinitrobenzene	13,31	8723	1.2260< o.s	982048	125%	Fails					0.982048	0%	<b>Pails</b>		(72-123)	45
TETRYL	14.37	4713	0 9976< _{0 9}	982048	102%	Ассернав!е					0.982048	0%	Fails		(66-105)	45
Nitrobenzene	15.23	3678	1.1910< 0.9	982048	12.1%	Fails					0.982048	0%	Fails		(69-119)	45
2.4,6-Trinitrotoluene	16.60	4967	1.1120< 0.9	982048	113%	Fails					0.982048	0%	Fails		(69-111)	45
4-AM-2,6-DNT	17.61	3628	1.1440< 09	982048	116%	Fails					0.982048	0%	<b>Fails</b>		(68-113)	45
2-AM-4,6-DNT	18.67	4580	1.2230< o.9	82048	125%	Fails					0.982048	0%	Fails		(77-123)	45
2,6-Dinitrotoluene	20.41	3237	1.1940< 0.9	82048	122%	Fails					0 982048	0%	Fails		(71-119)	45
2,4-Dinitrotoluene	21.13	5152	1.1820< 0.9	82048	120%	Fails					0 982048	0%	Fails		(70-119)	45
2-Nitrotoluene	24 86	2095	1.1450< 0.9	82048	117%	Acceptable					0 982048	0%	Fails		(64-120)	45
4-Nitrotoluene	26 68	2486	1 1150< 0.9	82048	114%	Acceptable					0.982048	0%	Fails		(67-115)	45
3-Nitrotoluene	28 70	2444	1 1130< 09	82048	113%	Acceptable					0.982048	0%	<b>Fails</b>		(67-114)	45
Nitroglycerin			4.9	10241	0%	Pails		15 86	16078	5 1910<	4.910241	106%	Acceptable		(85-115)	45
PETN			4.9	10241	0%	Fails		30 30	8828	5.4100<	4 910241	110%	Acceptable		(84-117)	45
3,5-Dinitroaniline	14.05	5434	1 1860< 0.9	82048	121%	Acceptable					0.982048	0%	Fails		(40-140)	45

			***************************************				
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
				<del></del>			
3,4-Dinitrotoluene	2,4551	2.5630	104	2.4551	2,6320	107	(79-111)

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D :: Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

**RE-INTEGRATION CODES** 

1 Poor Peak Shape

2 Poor Peak Resolution 3 Peak Not Integrated

5 Column Bleed £ Instrument Noise (7)Baseline Correction

4 Sample Matrix Interference 8 Other (reason must be stated) ALL REINTEGRATIONS MUST BE INTIALED,

DATED AND CODED

### A-000020.D

Chromatography Summary

Injection Date:

7/3/2009 7 30

Operator: fik

Vial Num: 26

Method 8330 Target Analyte Results

DataFile:

Method File:

LC10 I\07022009 B\A-000020 D

Instrument ID: LC10

LC10 N07022009 B\8330AB M

Sample:

WATER

Matrix:

LFV9K1AG 9182192 G9F300242-4 D

1X

SubList: WATER.sub

SpikeList: WATER.spk Start Cal Date: 6/10/2009 15 33 Dilution Factor Extract Volume

6/11/2009 13:47 End Cal Date:

Samp. Info: LFV9K1AG 9182192 G9F300242-4 D 1X,3,

Sample Volume Sample Weight

1X

0 g

20 mL 1017.3 mL

LCS,,1017 3;,20,1; WATER.sub, WATER spk,1,1,LFV9KIAG Misc. Info:

		Signal 1 UV 250-265				Signal 2 UV 358-205									
Compound Name	RT	Response	Conc (ug/L)	Spike Level	%R	Result	Flag	RT	Response	Cone (ug/L)	Spike Level	%R	Result	Flag Limits(	6) Flag
3,4-Dinitrotoluene	18 25	6293	2.6230<	2 457486	107%	Acceptable		18 25	10744	2 4430	2 457486	99%	Acceptable	(79-11	<u>1)</u>
HMX	5.31	7227	1.1760<	0.982994	120%	Fails					0.982994	0%	Fails	(65-11	5) 45
RDX	7.89	5021	1.2670<	0.982994	129%	<b>Fails</b>					0.982994	0%	Fails	(68-12	2) 45
Picric ACID	9.08	20473	4 8620	4 914971	99%	Acceptable		9 08	29993	4 8460<	4.914971	99 <b>%</b>	Acceptable	(21-11	3)
1,3,5-Trinitrobenzene	10.24	9422	1.2550<	0.962994	128%	Fails					0.982994	0%	Fails	(74-12	)) 45
1,3-Dinitrobenzene	13.31	9074	1.2770<	0.982994	130%	Fails					0 982994	0%	Fails	(72-12	3) 45
TETRYL	14.37	4912	1.0410<	0.982994	106%	Fails					0.982994	0%	Fails	(66-10	5) 45
Nitrobenzene	15.25	3769	1.2210<	0,982994	124%	Fails					0.982994	0%	Fails	(69-11	9) 45
2,4,6-Trinitrotoluene	16.60	5134	1.1510<	0.982994	117%	Fails					0 982994	0%	Fails	(69-11	1) 45
4-AM-2,6-DNT	17.61	3736	1.1790<	0.982994	120%	Fails					0 982994	0%	Fails	(68-11	3) 45
2-AM-4,6-DNT	18.68	4734	1.2650<	0.982994	129%	Fails					0 982994	0%	Fails	(77-12	3) 45
2,6-Dinitrotoluene	20.40	3327	1.2290<	0.982994	125%	<b>Fails</b>					0.982994	0%	Fails	(71-11	)) 45
2,4-Dinitrotoluene	21.13	5301	1.2170<	0.982994	124%	Fails					0.982994	0%	Fails	(70-11	) 45
2-Nitrotoluene	24.85	2037	1 1140<	0 982994	113%	Acceptable					0.982994	0%	Fails	(64-12	)) 45
4-Nitrotoluene	26.67	2543	1.1410<	0.982994	116%	Fails					0.982994	0%	Fails	(67-11	5) 45
3-Nitrotoluene	28.69	2491	1.1350<	0.982994	115%	<b>Fails</b>					0.982994	0%	Fails	(67-11	1) 45
Nitroglycerin				4.914971	0%	Fails		15 86	16383	5 2940<	4 914971	108%	Acceptable	(85-11:	5) 45
PETN				4.914971	0%	Fails		30.29	8399	5 4590<	4,914971	111%	Acceptable	(84-11	7) 45
3,5-Dinitroaniline	14.06	5660	1 2370<	0.982994	126%	Acceptable					0,982994	0%	Fails	(40-14	)) 45

		·		THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO IS NAMED IN COL			
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4575	2.6230	107	2.4575	2.4430	99	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

ed)

See reintegration.

Printed: 7/7/2009 10:05 AM

### LABORATORY CONTROL SAMPLE EVALUATION REPORT

### HPLC

Client Lot #...: G9F300242 Work Order #...: LFW791AC Matrix..... WATER

LCS Lot-Sample#: G9G010000-192

Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1

·	PERCENT	RECOVERY	
PARAMETER	RECOVERY	LIMITS	METHOD
Nitroglycerin	107	(85 - 115)	SW846 8330
PETN	1.10	(84 - 117)	SW846 8330
Picric Acid	88	(21 - 118)	SW846 8330
2-Amino-4,6-	127 a	(77 - 123)	SW846 8330
dinitrotoluene			
4-Amino-2,6-	119 a	(68 - 113)	SW846 8330
dinitrotoluene			
1,3-Dinitrobenzene	128 a	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	123 a	(70 - 119)	SW846 8330
2,6-Dinitrotoluene	125 a	(71 - 119)	SW846 8330
HMX	(120 a)	(67 - 115)	SW846 8330
Nitrobenzene	124 a	(69 - 119)	SW846 8330
2-Nitrotoluene	115	(64 - 120)	SW846 8330
3-Nitrotoluene	118 a	(67 - 114)	SW846 8330
4-Nitrotoluene	1.17_a	(67 - 115)	SW846 8330
RDX	(127 a)	(68 - 122)	SW846 8330
Tetryl	1.05	(66 - 105)	SW846 8330
1,3,5-Trinítrobenzene	127 a	(74 - 120)	SW846 8330
2,4,6-Trinitrotoluene	116 a	(69 - 111)	SW846 8330
		PERCENT	RECOVERY
SURROGATE		RECOVERY	LIMITS
3,4-Dinitrotoluene		106	(79 - 111)

### NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

### LABORATORY CONTROL SAMPLE DATA REPORT

### HPLC

Client Lot #...: G9F300242 Work Order #...: LFW791AC

Matrix....: WATER

LCS Lot-Sample#: G9G010000-192

Prep Date....: 07/01/09 Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	METHOD
Nitroglycerin	5.00	5.35	ug/L	107	SW846 8330
PETN	5.00	5.52	ug/L	110	SW846 8330
Picric Acid	5.00	4.42	ug/L	88	SW846 8330
2-Amino-4,6-	1.00	1.27 a	ug/L	127	SW846 8330
dinitrotoluene					
4-Amino-2,6-	1,00	1.19 a	ug/L	119	SW846 8330
dinitrotoluene					
1,3-Dinitrobenzene	1.00	1.28 a	ug/L	128	SW846 8330
2,4-Dinitrotoluene	1.00	1.23 a	ug/L	123	SW846 8330
2,6-Dinitrotoluene	1.00	1.25 a	ug/L	125	SW846 8330
HMX	1.00	1,20 a	ug/L	120	SW846 8330
Nitrobenzene	1.00	1.24 a	ug/L	124	SW846 8330
2-Nitrotoluene	1.00	1,15	ug/L	115	SW846 8330
3-Nitrotoluene	1.00	1.18 a	ug/L	118	SW846 8330
4-Nitrotoluene	1.00	1.17 a	ug/L	117	SW846 8330
RDX	1.00	1.27 a	ug/L	1.27	SW846 8330
Tetryl	1.00	1.05	ug/L	105	SW846 8330
1,3,5-Trinitrobenzene	1.00	1.27 a	ug/L	127	SW846 8330
2,4,6-Trinitrotoluene	1.00	1.16 a	ug/L	116	SW846 8330
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS		
3,4-Dinitrotoluene		106	(79 - 111)		

### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

### METHOD BLANK REPORT

### HPLC

Client Lot #...: G9F300242 Work Order #...: LFW791AA Matrix...... WATER

MB Lot-Sample #: G9G010000-192

Prep Date....: 07/01/09

Analysis Date..: 07/02/09

Prep Batch #...: 9182192

Dilution Factor: 1

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-	ND	0.20 ug/L		SW846 8330
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	SW846 8330
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	0.039 J	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	106	(79 - 111)		

### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

J Estimated result. Result is less than RL.

## QC DATA ASSOCIATION SUMMARY

## G9F300242

## Sample Preparation and Analysis Control Numbers

		ANALYTICAL	LEACH	PREP	
SAMPLE#	MATRIX	METHOD	BATCH #	BATCH #	MS RUN#
001	WATER	SW846 8330		9182192	9182194
002	WATER	SW846 8330		9182192	9182194
003	WATER	SW846 8330		9182192	9182194
004	WATER	SW846 8330		9182192	9182194
005	WATER	SW846 8330		9182192	9182194

G9F300242

TestAmerica West Sacramento ESC-Extraction Master Sheet

	e Due:	711/09 7/02/09	Project Due: 7/10/09 7/13/09	110109 7	13/09			
	BATCH #: 4182192		Initialed By:	2	Date.		2/01/60	
	Test#. 8330-L		Extn Comp'd By:	P	Date:		1107	,
OC Code	Lab ID	Sample Finat Finat Size Makes Finat	Difference in SOP	SOP No.: W S-	000	4 1		
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	69F260326-03							009
7/01/69	(V)							g - g
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	C9F270189 -03					}		916
	'			-				) oju
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9	1 1.							dest.
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				J			**************************************	:
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			C,5,D	10001	09GCSUO149	A 70/1/11	1	200
			0/5/0	ישבית ל	0866510039	11/109	PICTIC ACID SOURIFIED	V. C.
			Splic	ed By / Dafe;	£ 7/01/09	Witnesse	Witnessed By / Date: No. 1	. 2
	UC Codes: B = MB, C = LCS	= MB, C = LCS, L = LCSD, S = MS, D = SD, FB = Filter Blank	), FB = Filter Blank				**************************************	-60%

5.0 50UL-09GCSV0172

4.5 HOAC/ACN

NA HOAC/ACN

NA

S,

996.78mL 20.00mL

WATER

37 AC

G9F270189-004 7/02/09 7/13/09 LFRD9-1-AC COMMENTS:

99 of 81	group			009	e - ete (6	gre) ojuen	est Sacraı	W soirem	∆je∋T	
Run Date: 7/02/0	Expanded Deliverable COC Completed Bench Sheet Copied Package Submitted to AnalyticalGroup Bench Sheet Copied per COC	7/01/09 9:00 7/02/09 10:40		SPIKE STANDARD/ SURROGATE ID	.0 SOUL-09GCSV0172	.0 50UL-09GCSV0172	.0 SOUL-09GCSV0172	.0 50UL-09GCSV0172	.0 50UL-09GCSV0172	.º SOUL-09GCSV0172
~	Expanded   COC Compl. Y Bench She Fackage She	PREP DATE: COMP DATE:	Explosives (8330) AL)	SOLVENTS EXTRACTION VOL EXCHANGE VOL	4.5 HOAC/ACN 5	4.5 HOAC/ACN 5	4.5 HOAC/ACN S	4.5 HOAC/ACN 5	4.5 HOAC/ACN S	4.5 HOAC/ACN 5
ries, Inc. Worksheer		* OC BATCH: 9182192 *  **********************************	Nitroaromatics & Nitramines: Explosives SOLID PHASE EXTRACTION (NOMINAL)	ADJ2	NA HOAC/ACN	NA HOAC/ACN	NA HOAC/ACN	NA HOAC/ACN	na hoac/acm	NA HOAC/ACN
TestAmerica Laboratories, Inc. EXTRACTION BENCH WORKSHEET		* M * * U * * O * * * * * *	itroaromati Mid PHASE	PH"S	NA NA	na na	an an J	na na	na na	na na
TestAmeric EXTRAC	eet lume heets all match Method		.S.S.	INIT/FIN WT/VOL	997.78mL 20.00mL	991.12mL 20.00mL	1009.82mL 20.00mL	985.56mL 20.00mL	999.12mL 20.00mL	991.73mL 20.00mL
	e Worksherrect vo.			H MATRIX	WATER	WATER	) WATER	MATER	) Water	MATER (
	Weights/Volumes Spike & Surrogate Worksheet Val contains correct volume Labels, greenbars, worksheets computer batch: correct & all a	ı Phan	60/	EXT MIH	B7 A0	B7 A0	B7 A0	B7 A0	B7 A0	B7 A0
80	Blank Y Weights/ Check Y Spike & Ws/MSD Y 'Vial con Computer Computer Anomalie	002448 Tuan Q. Phan SE: 002448 Tuan Q.	/Date: PHANT / 7/02/09	ANL LOT#, MSRUN#/ TEST DUB WORK ORDER FLGS	G9F260326-001 7/10/09 LFQAK-1-AC :	G9F260326-002 7/10/09 LFQAL-1-AC	G9F260326-003 7/10/09 LFQAM-1-AC	G9F270189-001 7/13/09 TFFD6-1-AC	G9F270189-002 7/13/09 LFRD7-1-AC	G9F270189-003 7/13/09 LFRD8-1-AC
RQC058	LEV 1.EV Y Y Y Y T T T T T T T T T T T T T T T	Extractionist: Concentrationi	Reviewer/Date:	EXTR	7/01/09 COMMENTS:	7/01/09 COMMENTS:	7/01/09 COMMENTS:	7/01/09 COMMENTS:	7/02/09 COMMENTS:	7/02/09 COMMENTS:

Run Date: 7/0 Time: 11:4	7/01/09 9:00 7/02/09 10:40	SPIKE STANDARD/ SURROGATE ID	.0 SOUL-09GCSV0172	.0 50UL-09GCSV0172	5.0 SOUL-09GCSV0172	5.0 SOUL-09GCSV0172	5,0 50UL-09GCSV0172	.0 SEE BENCH SHEET 50UL-09GCSV0172	5.0 SEE BENCH SHEET 50UL-09GCSV0172	5.0 50UL-09GCSV0172	.0 50UL-09GCSV0172	5.0 SEE BENCH SHEET 50UL-09GCSV0172
~	PREP DATE: COMP DATE:	SOLVENTS EXTRACTION VOL EXCHANGE VOL	4.5 HOAC/ACN 5.	4.5 HOAC/ACN 5	4.5 HOAC/ACN 5	4.5 HOAC/ACN 5	4.5 HOAC/ACN S	4.5 HOAC/ACN 5.0	4.5 HOAC/ACN 5	4.5 HOAC/ACN S	4.5 HOAC/ACW 5	4.5 HOAC/ACN S
s, Inc. RKSHEET	** CC BATCH: 9182192 * ***********************************	SO ADJ2 EXTRACTION	NA HOAC/ACN	na hoac/acn	na hoac/acn	na hoac/acn	NA HOAC/ACN					
ratorie ENCH WO	OC BATCH:	PH"S ADJI AD	N AN	a an	ę.	AN A	a en	a din	A AM	a en	a An	AN A
TON E	* * * *	TINI	AN.	MA	N.	N.	AN.	AN	NA	A.	Ř.	ez E
TestAmerica Laboratories, Inc. EXTRACTION BENCH WORKSHEET		INIT/FIN WT/VOL	985.33mL 20.00mL	1014.4mL 20.00mL	975.28mL 26.00mL	1018.23mL 20.00mi	1028.11mL 20.00mL	1018.28mL 20.00mL	1017.3mL 20.00mL	1016,72mL 20.00mL	1000mL 20.00mL	1000mL 20.00mL
		MATRIX	WATER	WATER	WATER	Water	WATER	Water	Water	WATER	Water	WATER
		EXT MTH	B7 A0	B7 A0	B7 A0	B7 A0	B7 A0					
89		ANL LOT#, MSRUN#/ TEST DUE WORK ORDER FLGS	G9F270189-005 7/13/09 LFREA-1-AC	G9F300242-001 7/14/09 LFV9A-1-AC	G9F300242-002 7/14/09 LFV9G-1-AC	G9F300242-003 7/14/09 LFV9J-1-AC	G9F300242-004 7/14/09 LFV9K-1-AC	G9F300242-004 7/14/09 LFV9K-1-AFS	G9F300242-004 7/14/09 LFV9K-1-AGD	G9F300242-005 7/14/09 LFV9M-1-AC	G9G010000~192 0/00/00 LFW79-1-AAB	G9G010000-192 0/00/00 LFW79-1-ACC
85000%		EXTR	7/02/09 COMMENTS:	7/02/09 COMMENTS:	7/02/09 COMMENTS:	7/02/09 COMMENTS:	7/03/09 COMMENTS:	7/03/09 COMMENTS:	7/03/09 COMMENTS:	7/03/09 COMMENTS:	7/01/09 COMMENTS:	7/01/09 COMMENTS:

#### TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Page# 36

Inst ID: LC10 Batch ID: 06102009

Method: Method 8330 Test : SOP SAC-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample	ID	File	DD	Vol or	í	Extract	Dil	n   Comments
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10-JUN-2009	14:42	fhk	Blank		A-0001	001.]	0 g	1	0 mL	1	)
10~JUN-2009	15:33	fhk	STD_1 09GCSV0048	5.0/0/0/ong/m	A-000	002.]	0 g		Jm O	1	(
10-JUN-2009	16:23	fhk	STD_2 09GCSV0049	10/20/10/10ng	A-0000	003.	0 g	1	0 տև	1	I
10-JUN-2009	17:14	fhk	STO_3 090C8V0050	20/50/20/20ng	A-0000	04.[	0 g	ţ	O raL	1	Bad Stal
10-JUN-2009	18:05	fhk	STD_4 09GCSV0051	50/100/50/50n	A-0000	05.[	0 g	Ī	Jan O	1	l,
10-JUN-2009	18:56	fhk	STD_5 09GCSV0053	100/200/100/1	A-0000	006.}	0 g	1	0 mL	1	<u> </u>
10-300-2009	19:46	fhk	STD_6 09GCSV0054	200/500/200/2	A-0000	07.	0 g		O toL	] 1	1
10~JUN-2009	20:37	fhk	STD_7 09GCSC0055	500/1000/500/	A-0000	08.	0 g	- 1	O ጠቤ	1	1
10-JUN-2009	21:28	fhk	STD_8 09GCSV0056	1000/2000/100	A-0000	1.90	0 g	1	Ó ML	ļ 1	<b></b>
10-JUN-2009	22:18	fhk	Blank	}	A-0000	20.	0 g	ſ	O mL	1	
10-JUN-2009	23:09	fhk	ICV_6 08GCSV0397	100/200/100/1	A-0000	11.	0 g	1	O mL	[ ]	1
11-JUN-2009	00:00	Ehk	STD_S 09GCSV0053	100/200/100/1	A-0000	12.	0 g	1	O MT	1	<u></u>
11-3011-2009	00:50	fhk	Surrogate 100mg/m	r į	A-0000	13.	0 g	F	dm 0	j i	) <u> </u>
11-JUN-2009	12:56	] £hk	Primer		0000-A	14.	0 g	j	0 mL	1	J
11-300-2009	13:47	fnk	STD_3 09GCSV0050	20/50/20/20ng	A-0000	15.	0 g	1	0 mL	1	I will jected Now St

Jan 6/11/09

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33 End Cal Date : 11-JUN-2009 13:47

Ouant Method : ESTD : Disabled Origin Target Version : 4.14 : Falcon Integrator

Method file \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M

: \\Terastation\share\GCdata : 11-Jun-2009 15:06 kenneyf Last Edit

Curve Type : Average

Calib	ration	File	Names:	
Level	1: \\	Terast	:ation\	share\

GCdata\GCdata\LC10.I\06102009.B\A-000002.d \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d Level 4: Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d Level 6: Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d

\\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d

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6 1,3,5-Trinitrobenzene	161	146	145	150	147	148	,   1	1	' 
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7 1,3-Dinitrobenzene	145		138	142	139	142		1	İ
	128	141		ļ :			140	3.715	
~~^~~	-								
8 3,5-Dinitroaniline	97.20000	90.80000[	89.35000	91.80000	88 83000	90.35000]	1	l	
	82.20800	89 25000	]	<b>]</b>	]		89.97350	4.581	
	-								
9 TETRYL	97.600001	<b>/</b> 95 10000	/77.400001	96 02000	31000 49ر	95 060001	_	1	
		94.40900	/				92.79113	6.8881	
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#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33 End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD

Origin : Disabled Target Version : 4.14 : Falcon Integrator

: \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M : 11-Jun-2009 15:06 kenneyf Method file

Last Edit

Curve Type : Average

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	:	•	•	50,000		200.000	· —	)
Compound	:	_	Level 3	Level 4	Level 5	Level 6	RRF	RSD
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  -	:	Level 8	•	1	ļ 1	ļ 1	<b>{</b>	[ 1
l 10 Natrobenzene	•	•	56.55000	•	'	,	•	=≠=====± ]
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· 		` 			[			
12 2,4,6-Trinitrotoluene	94.80000	90.20000	81.90000	88.78000	87.04000	87 55500	!	
	84.22200	87.17800	i	Ì	ĺ	j	87,70937	4.401
13 4-AM-2,6-DNT	67.00000	63.30000	60.85000	63.26000	61.61000	62 67000	, i	i
	58.65400	61.14600	آ آ	ĺ			62.31125	3 901
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14 2-AM-4,6-DNT	74.80000	75 80000	73.10000	75.54000	73 53000	74.39000	J	
·	69.18400	72 13500			1		73.55987	2.932
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15 2,6-Dinitrotoluene	•	'	51.90000	53.68000	53.03000	•	•	Į
	50.43000	52.74900		ļ	ļ	Į.	53.23900	3.838
16 2,4-Dinitrotoluene	1 93 00000	96 50000	82,60000	[ = = = = = = ]   e	100000 20	05 400001		1
20 27.1 2211221703102110		85.05700		00.20000  	07 72000		85.62488]	4.031
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17 2-Nitrotoluene	40.80000		33.20000	'	35.210001	35.775001	1	1
1		35.45000		00010120   	35.21000		35.93113	6.486
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18 4-Nitrotoluene	48.000001	46.400001	40.75000	,	,	,	1	į
	,	43.21300	•		1		43 798001	5.390
19 3-Nitrotoluene	47 00000j	44.600001	/39.85000)	43 24000	/42.93000	43 08000	j	i
I	41.51600	42.82400		1	1	<u> </u>	43.13000	4.852
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#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33

End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled

Target Version : 4.14
Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

	[ 5.000   10.000   20.000   50.000   100.000   200.000
Compound	Level 1   Level 2   Level 3   Level 4   Level 5   Level 6   RRF   % RSD
<u> </u>	500.000   1000.000
!	Level 7   Level 8
\$ 1 3,4-Dinitrotoluene	+++++   50.20000 46.40000 46.48000 45 87000 46.85500
1	46.08000 48.38600 47.16729 3.251
1	
<u> </u>	

Page 1

Report Date : 12-Jun-2009 16:04

Start Cal Date
End Cal Date

: 10-JUN-2009 16:23

: 11-JUN-2009 13:47

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Quant Method : ESTD : Disabled Origin Target Version : 4.14 Integrator : Falcon : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83 Method file Last Edit : 11-Jun-2009 15:14 kenneyf Curve Type : Average Calibration File Names: Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A-Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d\A-Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A-Level 5: \\Terastation\share\GCdata\GCdata\LCl0.I\06102009.B\A-000006.d\A-Level 6: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A-Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A-

Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A-

	10.000	20.000	50.000	100.000	200.000	500,000	1	ţ
Compound		Level 3	Level 4	Level 5	Level 6	Level 7	RRF	∜ RSD
	1000.000	[		 	)	)	1	! 
	Level 8	†		1	i L	1	ļ	1
2 НМХ ·	+++++	+++++	\	+++++	+++++  ****====	+++++	1	======
	+++++	 		<b>,</b>	1	1	+++++	+++++ 
3 RDX	+++++	+++++	+++++	+++++	+++++		}	
	+++++	1	<u> </u>	i	!	]	+++++	) +++++
4 EGDN	1	+++++	+++++	+++++	+++++	+++++		 
	1 +++++	1	i	ļ	1	<u> </u>	+++++ 	+++++
5 Picric ACID	+++++	134	126	125	125	110	[	
	110	1	1			!	122	8.080
6 1,3,5-Trinitrobenzene	+++++	{ +++++	+++++	+++++	+++++	+++++		
	1	 	[ 1	]			+++++	++++
7 1,3-Dinitrobenzene	+++++	+++++	+++++	+++4+	   +++++	+++++		<b></b>
	+++++		<b>!</b>	. !	ļ į	 	+++++	++++
8 3,5-Dinitroaniline	+++++	+++++	+++++	++++++	   +++++	+++++		
	+++++			[ [			+++++	+++++
9 TETRYL	+++++	+++++	   +++++	   +++++	<del>-</del>	+++++	 	******
	+++++	l i	1		i		+++++	+++++

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD

: Disabled Origin Target Version : 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf

Curve Type : Average

	10.000	20.000	50.000	•	200.000	500.000		]
Compound	Level 2	Level 3	Level 4	Level 5	:	Level 7	RRF	% RSD
	[1000.000	•	}			}	1	 
3	Level 8	]	1	1	i Į	1	1	1 1
********************************	=======	} {=====	, 	  -=::=:::==	{======== 1			  =========
10 Nitrobenzene	+++++	++++	·   +++++	·   +++++	,   ++++		i	i
	+++++	ļ	I	1	l	1	++++	+++++
11 Nitroglycerin		61 25000	   59 82000		61.86500	59 75400		 !
II NICIOGLYCELIN	61.73900	•	; 55.02000 	00.3000 	1 01.00500	1 33.13400	   60.83467	1 1.5
					, 	ļ		
12 2,4,6-Trinitrotoluene	+++++	+++++	+++++	+++++	+++++	+++++	l	1
	+++++	1	<u> </u> 		ļ !	ļ 1	+++++ 	+++++
13 4-AM-2,6·DNT	+++++	1 +++++	   +++++	+++++	} { +++++	1 +++++		<del></del>
	+++++	, [	•	1	ĺ	1	+++++	+++++
	}							
14 2-AM-4,6-DNT	+++++	1++++	+++++	14+++	++++	+++++		!
	+++++	  -				 	+++++	+++++ 1
15 2,6-Dinitrotoluene	+++++	}    +++++	+++++	+++ <b>+</b> +	+++++	} +++++		~ ~ ~ ~ <b>~ ~ ~ ~ .</b>
•	++++	i I				<u>'</u>	+++++	+++++
		[			[			
16 2,4-Dinitrotoluene	++++	+++++	+++++	+++++	+++++	+++++		
	+++++	 	 	 	! !	 	. +++++	+++++
17 2-Nitrotoluene	+++++	,   ++++	4++++	   +++++	+++++	+++++	ľ	
•	+++++			ı	į		+++++	++++
					}			
18 4-Nitrotoluene	+++++	+++++	+++++ )	*****	+++++	+++++	ļ	
	+++++	 	i				+++++	++++
19 3-Nitrotoluene	+++++	+++++	+++++	+++44	+++++	+++++		
	+++++		, ,		1		+++++	++++
						j		
20 PETN	+++++	32.65000	30.36000	31.91000	32.25000	•		
•	32.75200	}	ļ		Ţ	ı	32.05033	2.74

Page 3 Report Date : 12-Jun-2009 16:04

## TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 End Cal Date : 11-JUN-2009 13:47

Quant Method : ESTD : Disabled Origin

Target Version : 4.14 Integrator

: Falcon : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83 : 11-Jun-2009 15:14 kenneyf Method file

Last Edit

Curve Type : Average

1000 000		10.000	20.000	50 000	100.000	200.000	500.000		
1000 000	Compound	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	% RSD
Level 8	1	]						!	
	Į	1000 000	!					1	
\$ 1 3,4-Dinitrotoluene	1	Level 8			1			ĺ	
		=	=======	ринципан	zun z z z z z z z z z	*******	**********	********	n========
1 00 74000	\$ 1 3,4-Dinitrotoluene	<u>₩</u> +++++ 1	90.40000	88.76000	83.28000	90.51000	88 03667	ł	
1   100714766         63.824.81 5.1	1	93.14200		J i			j	89.85478	2.143
	1	1 1	· I	1 :			1	ſ	

* Level2 dropped due to poor thit gration

gen

GIA (09)

A-000011.D

End Cal Date:

Chromatography Summary

Injection Date:

Instrument ID:

Method File:

6/10/2009 23:09

1.C10

Operator: fik

Method 8330 Target Analyte Results

LC10.IV06102009.BVA-000011 D DataFile:

Vial Num: 20

Sample:

ICV_6 08GCSV0397 100/200/100/100ng/mL

SpikeListi

LC10.I\05102009.B\8330AB M

Extract Volume

0 mL

Matrix: NONE

SubList: CAL sub

Start Cal Date: 6/10/2009 15:33 6/11/2009 13:47

Dilution Factor

Sample Weight Sample Volume

Samp. Info:

ICV_6 08GCSV0397 100/200/100/100ng/mL;2

1X

0 mL 0 g

Misc. Info: :6; ; ; ;3;CAL sub; ;0;1

			Signal I U	V 250-2	65					Signal 2 UV	358-205				*******
Compound Name	RT	Response	РРВ	Spike Level	%D	Result	Flag	ŔТ	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene				200	-:100%	Pails	N	rin ,	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		200	-100%	Fails	(±15)	
ХМН	5 29	26153	216.4000<	200	8%	Acceptable	•	` ,	.,		200	-100%	Fails	(±15)	45
RDX	7.84	16084	206,5000<	200	3%	Acceptable					,200	-100%	Fails	(±15)	45
Picno ACID	9.00	41754	504,4000 .	<i>i</i> 600	1%	Acceptable		9.00	61509	\$05,5000<	500	158	Acceptable	(±15)	
1,3,5-Trinitrobenzene	10.20	29097	197.1000<	200	-1%	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dinitrobenzene	13.25	27834	199,2000<	200	0%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL.	14.30	17776	191 6000<	200	-4%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	15.16	12143	200.1000<	200	0%	Acceptable					200	-100%	Fails	(±15)	45
2,4,6-Trinffrotoluene	16 53	17352	197.8000<	200	-5 %	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17 31	11969	192.1000<	Z 200	-4%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18.57	13851	188.3000<	200	-6%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dinitrotoluenc	20.28	10445	196.2000<	200	-2%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dimtrotolocae	21.00	16653	194,\$000<	200	-3%	Acceptable					200	-100%	Fails	(*15)	45
2-Nitrotoluene	24.68	7069	196.7000<	200	-2%	Acceptable					200	-100%	Fails	(±15)	45
4-Nitrotolueno	26.50	8526	194.7000<	200	-3%	Acceptable					200	-100%	Pails	(±15)	45
3-Nurotoinenc	28.49	8451	195 9000< v	200	-2%	Acceptable					200	-100%	<b>Fails</b>	(±15)	45
Nitroglycerin				200	-100%	Fails		15.78	12548	206 3000< 8	/ 200	356	Acceptable	(±15)	45
PETN				200	-100%	<b>Fails</b>		30.10	5830	181.9000<	<b>√</b> 200	.9%	Acceptable	(±15)	45
3,5-Dintroaniline	13.99	18460	205.2000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
EGDN				200	-100%	Fails						-100%	Fails	(±15)	

Notes.

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result O = Over Calibration Range

Signals Differ by More Than 50%

Printed: 6/11/2009 3:26 PM

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 07022009

Method: Method 8330 Test: SOP SAC-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample	ID	File ID	Vol or	Extract	Diln	Comments
	<b>)</b>		1		1	} WE	Vol	i 	
2-JUL-2009	15:27	fhk	Primer	4444	A-000001.	0 g	O mL	1	1
2-JUL-2009	16:18	fhk	Primer		]A-000002.	0 g	0 mL	1	
2-JUL-2009	17:09	fhk	STD_6 09GCSV0054	.4K/.2/.2/.2/	A-000003.	0 g	0 mL	1	l
2-JUL-2009	13:00	fhk	LFW791AA 9182192	G9G010000-192	A-000004.	1000 mL	20 mL	1	1
2-JUL-2009	18.50	fhk	LFW791AC 9182192	G9G010000-192	A-000005.	1000 mL	20 mL	1	i
2-JUL-2009	19:40	fhk	LFQAKIAC 9182192	G9F260326-1 1	A-000006.	997.78 mt	20 mL	1	
2-JUL-2009	20:31	fhk	LFQAL1AC 9182192	G9F260326-2 1	A-000007.	991.12 mL	20 mL	1	1
2-JUL-2009	21:22	fhk	LFQAMIAC 9182192	G9F260326-3 1	A-000008	1009 82 mL	20 mL	1,	l
2-JUL-2009	22:13	fhk	LFRD61AC 9182192	G9F270189-1 1	A-000009	985.56 mL	20 Պե	1	l
-JUL-2009	23:03	fhk	LFRD71AC 9182192	G9F270189-2 1	A-000010.	999 12 mL	20 mL	1	
2-JUL-2009	23:54	fhk	LFRD81AC 9182192	G9F270189-3 1	A-000011.	991 73 mL	20 mL	1.	1
3-JUL-2009	00:45	thk	STD_5 09GCSV0053	2K/.1/.1/.1/	A-000012.	0 g	O mL	1	J
-JUL-2009	01:36	£hk	[LFRD91AC 9182192	G9F270189-4 1	A-000013.	996 78 mL	50 WF	l 1	1
-JUL-2009	02:27	fhk	LFREA1AC 9182192	G9F270189-5 1	A-000014.	985.33 mL	20 mL	1	l
-JUL-2009	03:17	fhk 🐃	LFV9A1AC 9182192	G9F300242-1 1	A-000015.	1014.4 mL	20 mL	1	1
-JUL-2009	04:07	£hk —	LFV9G1AC 9182192	G9F300242-2 1	A-000016.	975.28 mL	20 mL	1	l
-JUL-2009	04:58	fhk	LFV9J1AC   182192	G9F300242-3 1	A-000017.	1018.21 mL	20 ML	1	1
-JUL-2009	05:49	fàk	LEV9K1AC 9182192	G9F300242-4 1	A-000018.	1028.11 mL	20 mL	1	1
-JUL-2009	06:39	fhk MS	LFV9K1AF 9182192	G9F300242-4 S	A-000019.	1018.28 mL	20 mL	1	<b> </b>
-JUL-2009	07.30	fhk NSD	LFV9K1AG 9182192	G9F300242-4 D	A-000020.	1017.3 mL	20 mL	1	ļ
3-JUL-2009	08:20	thk	LFV9M1AC 9182192	09F300242-5 1	A-000021.	1016.72 m∐	20 mL	l l	]
-301-2009	09.11	fhk	STD 6 09GCSV0054	.4K/.2/.2/.2/	A-000022.	0 g	O ML	1	l
-JUL-2009	10:01	fhk	09GCSV0234 LEVEL	1	A-000023.	0 g	0 mL	1	1
-JUL-2009	10:52	£hk	09GCSV0235 LEVEL	2	A-000024	0 g	0 mL	1	<u>{</u>
-JUL-2009	11:42	fhk	09GCSV0236 LEVEL	3	A-000025.	0 g	O mL	1	1
-JUL-2009	12:33	£hk	09GCSV0237 LEVEL	4	A-000026.	0g	0 mL	1	1
-JUL-2009	13:23		<b>09GCSV</b> 0233 LEVEL		A-000027	0 g	du 0	1,	1
-JUL-2009	14.14		09GCSV0239 LEVEL		A-000028.	0 g	Q mL	1.	}
-JUL-2009	:	fhk	09GCSV0240 LEVEL		A-000029.		0 mL	1	I
3-JUL-2009			09GCSV0241 LEVEL		  A-000030.		O mL	1	
-30r-5009			09GCSV0242 LEVEL		A-000031.	' '	O mL	1	
-JUL-2009			09GCSV0243 MRL		A-000032.		0 mL	1	1

## A-000003.D

Chromatography Summary

Injection Date:

7/2/2009 17 09

Operator: fhk

DataFile:

LC10.N07022009 B\A-000003 D

Vial Num: 2

Method 8330 Target Analyte Results

Instrument ID:

1.C10

Sample:

STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Sign

Method File:

LC10 I\07022009 B\8330AB.M

Start Cal Date: Dilution Factor 6/10/2009 15.33

End Cal Date:

6/11/2009 13 47

Matrix:

SubList: CAL sub

Extract Volume

NONE

SpikeListe

Sample Volume

Sample Weight

0 mL

Samp. Info:

STD_6 09GCSV0054 4K/.2/ 2/ 2/ 2,2

1X

 $0 \, \text{mL}$ 

0 g

Misc. Info:

,6, , , ;3;CAL.sub; ;0;1

nal 1 UV 250-265	Signal 2 UV 358-205

Compound Name	RT	Response	РРВ	Spike Level	%Đ	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18.20	9636	204 3000<	200	2%	Acceptable		18 20	18445	213 4000	200	7%	Acceptable		(±15)	
HMX	5.29	25432	210 5000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
RDX	7 85	16295	209 2000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	8.99	41811	505,1000	500	155	Acceptable		8 99	61520	505 6000<	500	1%	Acceptable		(±15)	
1,3,5-Trimtrobenzene	10 20	30367	205 7000<	200	35€	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13 26	29099	208.3000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL	14 32	19114	206.0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Niuobenzenc	15 19	12872	212.1000<	200	648	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Tnnitrotoluene	16 55	13075	206 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.55	12873	206.6000<	200	358	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.61	15046	204.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotolvene	20,34	10970	206.0000<	200	34	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinttrotoluena	21 06	17567	205 2000<	200	31%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluenc	24 79	7368	205 0000<	200	34	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.61	8982	205.1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28 64	3962	207 8000<	200	44	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15 83	12531	206 0000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Fails		30 22	6862	214.1000<	200	7%	Acceptable		(±15)	45
3,5-Dinitroaniline	14 01	18502	205.6000<	200	34	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D ... Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/2/2009 7:28 PM

## A-000012.D

0 mL

Chromatography Summary

Injection Date: DataFile: 7/3/2009 0:45

LC10

Operator: fik

Method 8330 Target Analyte Results

Instrument ID:

LC10.I\07022009.B\A-000012 D

Vial Num: 3

9 G

Sample:

Matrix:

STD_5 09GCSY0053 .2K/.1/.1/.1

SubList: CAL sub

Method File:

1X

LC10 N07022009.B\8330AB M

 $0 \, mL$ 

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47

Dilution Factor Extract Volume Sample Volume Sample Weight

SpikeList:

Samp. Info: STD_5 09GCSV0053 2K/ 1/ 1/ 1/ 1,2

Misc. Info: ;5;;;

NONE

;5; ;; ;3;CAL sub; ;0:1

			Signal I U	JV 250-2	65					Signal 2 UV	358-205		<u> </u>		
Compound Name	RT	Response	PP8	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3.4-Dimtrotoluene	1821	4770	101 1000<	100	1%	Acceptable		18.21	9105	105 3000	100	5%	Acceptable	(±15)	
HMX	5 29	12564	104 8000<	100	5%	Acceptable					100	-100%	Fails	(±15)	45
RDX	7.86	8028	10.3 1000<	100	3%	Acceptable					100	.100%	Fails	(±15)	45
Picric ACID	9.05	16980	205 1000	200	3%	Acceptable		9 05	25011	205 5000<	200	3%	Acceptable	(±15)	
1,3,5-Tunitrobenzene	10 21	15116	102.4000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
1.3-Dinitrobenzene	13.27	14453	103 5000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
TETRYL	1434	9510	102 5000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
Nitrobenzene	15.20	6322	104,2000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2,4,6-Trinstrotolvene	16 57	9018	102 8000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17.56	6403	102,8000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18 63	7508	102 1000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,6-Dinitrotohiene	20.35	5455	102 5000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	21 08	8726	101.9000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2-Nitrotoluene	24 79	3635	101 2000<	100	19	Acceptable					100	-100%	Fails	(±15)	45
4-Nitrotoluene	26 61	4448	101.6000<	100	257	Acceptable					100	-100%	Fails	(±15)	45
3-Nitrotoluene	28.63	4394	101 9000<	100	2%	Acceptable					100	.100%	Fails	(±15)	45
Nitroglycerin					-100%	Fails		15 82	6254	102 8000<	100	3%	Acceptable	(±15)	45
PETN					-100%			30 25	3304	103 1000<	100	3%	Acceptable	(±15)	45
3,5-Dinitroamline	14 02	9179	102 0000<	100		Acceptable					100	-100%	Fails	(±15)	45
EGDN					-100%	Falls					100	-100%	Fails	(±15)	



Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/7/2009 10:01 AM

## A-000022.D

Chromatography Summary

Sample:

Method 8330 Target Analyte Results

STD_6 09GCSV0054 .4K/.2/.2/.2/.2

SpikeList:

SubList: CAL.sub Matrix NONE Samp. Info: STD_6 09GC\$V0054 .4K/ 2/.2/.2/.2,2

Misc, Info: ,6,;;,3,CAL,sub,,0,1 Injection Date: 7/3/2009 9:11

Instrument ID;

DataFile: LC10 N07022009.B\A-000022 D

Yial Num: 4

Operator: fik

LC10

Method File: LC10 N07022009.B\8330AB.M

6/11/2009 13:47 Start Cal Date: 6/10/2009 15.33 End Cal Date: Sample Weight Dilution Factor Extract Volume Sample Volume

1X 0 mL  $0\,\mathrm{mL}$ 0 g

			Signal 1 (	JV 250-2	65					Signal 2 UV	358-205				
Compound Name	RT	Response	PPB	Spike Leyel	%D	Result	Flag	RT	Response	ррв	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene	18,24	9589	203,3000<	200	2%	Acceptable		18 23	18290	211,6000	200	6%	Acceptable	(±15)	
HMX	5.30	25440	210.6000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
RDX	7 87	16268	208 8000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
Pierie ACID	9 04	42655	515.3000	500	3%	Acceptable		9.04	62723	515 5000<	500	3%	Acceptable	(±15)	
1,3,5-Trinitrobenzene	10 22	30282	205 1000<	200	3%,	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dmitrobenzene	13.29	28991	207 5000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	14,35	19191	206.8000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	15.21	12738	209 9000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
2,4,6-Trinitrotoluene	16.58	18022	205 5000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17 58	12828	205 9000<	200	39,	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18 65	15059	204 7000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dinitrotoluene	20.38	10882	204.4000<	200	29,	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dmitrotoluene	21 10	17483	204,2000<	200	29,	Acceptable					200	-100%	Fails	(±15)	45
2-Nurotoluene	24.82	7294	203.0000<	200	29,	Acceptable					200	-100%	Fails	(±15)	45
4-Nitrotoluene	26.64	8876	202,6000<	200	195	Acceptable					200	-100%	Fails	(±15)	45
3-Nitrotaluene	28.67	8836	204.9000<	200	293	Acceptable					200	-100%	Fails	(±15)	45
Nitroglycerin				200	-100%	Fails		15 84	12481	205 2000<	200	3%	Acceptable	(±15)	45
PETN				200	-100%	Fails		30.27	6681	208 4000<	200	4%	Acceptable	(±15)	45
3,5-Dintroaniline	14 03	18458	205.1000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails	(±15)	

Notes:

M = Manually Integrated

D == Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/7/2009 10:10 AM

### TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Page# 46

Inst ID: LC9

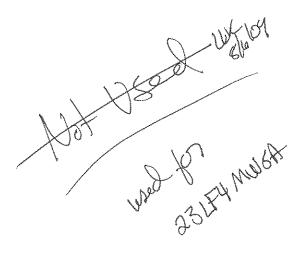
Batch ID: 06092009

Method: Method 8330

Test : SOP WS-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample	ID	File ID	Vol or	Extract	Diln	Comments
	j	i			1	Wt	Vol	1	1
			*********					44 = 4 p = 5	======================================
09-JUN-2009	17:40	fhk	Primer		C-000001	0 g	0 mL	1	l
09-JUN-2009	18:46	fhk	Primer		[C-000008.	0 g	( 0 mL	1	l
09-มีเพ-2009	19:49	fhk	BLANK		C-000003	0 g	0 mL	1	<u> </u>
09-JUN-2009	20:53	fhk	STD_1 09GCSV0048	5/0/0/0/0	C-000004	( 0 g	0 mL	1	]
09-JUN-2009	21:56	<b>[fhk</b>	STD_2 09GCSV0049	10/20/10/10/1	C-00000S	[ 0 g	0 mL	1	1
09-JUN-2009	22:59	fhk	STD_3 09GCSV0050	20/50/20/20/2	C-000006	l og	0 mL	1	1
10-JUN-2009	00:03	thk	STD_4 09GCSV0051	50/100/50/50/	C-000007.	0 g	0 mL	1	l
10-JUN-2009	01 07	lihk	STD_S 09GCSV0053	100/200/100/1	C-000008	) 0 g	O mb	1	J
10-JUN-2009	02.11	] fhk	STD_6 09GCSV0054	200/500/200/2	C-000009.	0 g	( 0 mL	1	\
10-JUN-2009	03:16	Ehk	STD_7 09GCSV0055	500/1000/500/	C-000010	) 0 g	i o mī	1	1
10-JUN-2009	04:20	fhk	STD_8 09GCSV0056	1000/2000/1K/	[C-00001)	] 0 g	0 mL	1	l
10-JUN-2009	05:25	(fhk	BLANK		C-000012.	) 0 g	0 mL	1	}
10-JUN-2009	06:29	fhk	ICV_6 08GCSV0397	200/500/200/2	C-000013.	1 0 g	0 mL	1	<b>}</b>
10~JUN-2009	07.33	thk	STD_S 09GC3V0053	100/200/100/1	]C-000014	0 g	O mL	1	l



Page 1

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

: 09-JUN-2009 20:53 Start Cal Date End Cal Date 10-JUN-2009 04:20 Quant Method : ESTD Origin : Disabled Target Version : 4.14 Integrator : HP Genie : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M Method file Last Edit : 10-Jun-2009 10:24 kenneyf Curve Type : Average Calibration File Names: Level 1: \Terastation\share\GCdata\GCdata\I.C9.I\06092009.B\C-000004.d \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d\\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d Level 6: \Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d Level 8: \Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d

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Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	ł
	1				1	.	1	f	ļ
	500 000	1000.000	-			1	1	1	}
	Level 7	Level 8	1	1	1	1	(	f	}
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2 HMX	•	-		40.46000	J 39 51000	<u> </u>		1	1
	37 41800	39.22000	<u>_</u>	}	1	1	41.20913	9,288	3
					\		\	}	. }
3 RDX	•	•	,	43.30000	42.16000	42.58500		j	1
	38,11800	42.45200	1	1	!	!	42.55812	4 852	1
4 EGDN			1	1	1	1		 :	.
4 EGUN	) +++++     +++++	+++++	) +++++	1 ++++-	1 +++++	} +++++	} }	<b>]</b>	1
	<del>                                    </del>	++++	1	1	1	1	} +++++	+++++ 1	<-
5 Picric ACID	+++++	++++	1 +++++	+++++	[ +++++	1 +++++		1 1	1
J (10110 ACID	1 +++++	1 +++++	1	1	1	1	,   +++++	1 1 +++++	[  <-
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6 1,3,5-Trinitrobenzene	66 80000	67 20000	1 67,60000	   68.82000	,   67 02000	67.61500	! <del> </del>	! 	i
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								, 	1
7 1,3-Dinitrobenzene	95.20000	88.70000	87.25000	89 40000	87 58000	88.56500		ĺ	İ
	79.37000	88 38800	}			1	88.05662	4.893	j
*****	[]		}					\	i
8 3,5-Dinitroaniline	71.20000	68.50000	68.65000	68 54000	66.12000	66 97500			1
	60.97200	65.89900	1		ì	1	67.10700	4,478	}
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9 TETRYL	93 20000]	/86.50000	85.70000	86.92000	86 05000	86 26500	L I		l
	85.04400	_86.33600		1	I	[ [	87 00187	2.950	1
									[
	1 1								

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53 End Cal Date : 10-JUN-2009 04:20 Quant Method : ESTD

Quant Method Origin : Disabled Target Version : 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf

Curve Type : Average

Compound	•	10 000   Level 2	•	•	•	•		% RSD
	r	1000.000	,	 	 		<b>!</b>	<u> </u>
	:	Level 8	•	 	 		  -===================================	  -===================================
10 Nitrobenzene	39.40000 35.35200	42.00000 40.30500	38.65000		•		39.60025	,   5,009
11 Nitroglycerin	+++++	}   +++++   +++++	+++++   	{   +++++ 	}   +++++ 	   +++++ 	     +++++	
12 2,4,6-Trinitrotoluene	104	91.00000	•		   74.32000 		80.89538	13.892
13 4-AM-2,6~DNT	68.80000	69.80000	68.05000	•	•	•	•	į
14 2-AM-4,6-DNT	80.20000	76.80000 72.19800	75.45000	•	   72 25000 	73.07500	74.28838	4.343
15 2,6-Dinitrotoluene	45.69200				!	j .	50 05412	S 280
16 2,4-Dinitrotoluene	83.00000	82.40000   78.73900	79.60000		,	79 32000		3,779
17 2-Nitrotoluene	•	/25.30000 - 24.28200		24 39000 1	24.32500	<u> </u>	24.12756	3.813
18 4-Nitrotoluene	+++++ }	+++++   +++++	# <del>* * * * * *  </del>	++4+	+++++ 	+++++ 	     +++++	++++
19 3-Nicrotoluene	35.00000, 28.82000	•	30 55000	31.42000	30.76000		31.39862	5,672
20 PBTN	+++++	+++++	· · · · · · ·	++++4	+++++			

Page 3

Report Date: 10-Jun-2009 10:33

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53

End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

1	5.000	10.000	20.000	1 50 000	100.000	200.000	)	1 1
Compound	Level 1	Level 2	Level 3	Davel 4	Level 5	Level 6	RRF	% RSD
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1	500.000	1000.000	1	1	ļ	1	J	1 1
[	Level 7	Level 8		i	1	ł		
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\$ 1 3,4-Dinitrotoluene	+++++	46.40000	1 40 85000	39.44000	38.04000	<u>j</u> _38_34500	<u> </u>	<b>!</b>
1	35.87333	38.62800	^ را	ĺ	ĺ	1	39.65376	8.405
	1	1	T	{				}
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Start Cal Date : 09-JUN-2009 21:56

End Cal Date

: 10-JUN-2009 04:20

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

: ESTD Quant Method Origin : Disabled Target Version : 4.14 Integrator : HP Genie Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8 : 10-Jun-2009 10:25 kenneyf Curve Type : Average Calibration File Names: Level 2: \Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d\C-0 \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d\C-0 \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d\C-0 Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d\C-0\\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d\C-0 Level 5: Level 6: Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d\C-0 Level 8: \Texastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d\C-0

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Page 2

Report Date : 10-Jun-2009 10:35

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56 End Cal Date : 10-JUN-2009 04:20 Quant Method : ESTD Origin : Disabled

Target Version : 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

	•			100.000	•			
Compound	Level 2	,	Level 4	Level 5		Level 7	RRF	∜ RSD
		'						
	1000.000	•	1		J	! ! ! !		<b>.</b>
	Level 8	•	 	======================================	*=====================================	/ /l	*******	*****
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10 Nitrobenzene	+++++	*++++ 	} +++++ /	*****	क्यार्क 	) 77444   	+++++	! ! +++++
	***** 	! !	1 			, 		
11 Nitroglycerin	1 +++++	55,25000	55.16000	56.33000	l 57 02000°	ا  56.37800		
ii wiciogiyeeiin	57.30100	1	1 33.20000	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_	56,23650	1.5
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12 2,4,6-Trinitrotoluene	,   ++*++	,   +++++	,   +++++	+++++	   +++++	'   +++++	i I	
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	1 200	` '	. 1	,	1	'		

Page 3 Report Date : 10-Jun-2009 10:35

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56 End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

	10.000	20 000	50.000	100 000	200.000	500.000		1	-
Compound	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	% RSD	j
1								j	}
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C-000013.D

Chromatography Summary

Injection Date:

6/10/2009 6:29

LC9

Operator: fhk

Method 8330 Target Analyte Results

DataFile: Instrument ID: LC9 1\06092009 B\C-000013 D

Vial Num: 20

Sample:

ICV_6 08GCSV0397 200/500/200/200/200

Method File:

LC9 N06092009 B\8330CNAB M

Start Cal Date:

6/9/2009 20:53

End Cal Date:

6/10/2009 4 20

Matrix: NONE SubList: CALsuo

SpikeList:

Dilution Factor Extract Volume Sample Volume

Sample Weight

Samp. Info:

ICV_6 08GC\$V0397 200/500/200/200/200;2

1X 0 mL  $0 \, mL$ ûg

Mise. Info:

; 6, , , ; 3; CAL sub; ; 0; 1

Signal 1 UV 250-265		Signal 2 UV 358-205

Compound Name	RT	Rusponse	PPB	Spike Level	%D	Result	Flag	RT	Response	ррв	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene	31.18	259	6.5320<	200	=97%	- Fails	Not	inu	+		200	-100%	Fails	(±15)	45
нмх	35 11	8323	202,0000<	<b>/</b> 200	1%	Acceptable					200	-100%	Fails	(±15)	45
RDX	25.60	8556	201 0000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails	(±15)	
1,3,5-Trinittobenzene	21.78	13318	198.8000<	200	-1%	Acceptable					200	-100%	Fails	(±15)	45
1.3-Dinttrobenzene	19.50	17403	197.6000<	200	-1%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	40.80	16134	185.4000<	200	·7%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzena	1681	7967	201.2000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
2,4.6-Trimtrotoluene	32.92	14562	180 0000<	500	10%	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	29.55	12516	187.0000<	200	-7%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	29 21	14216	191 4000<	200	-4%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dimuotoluene	27 26	9755	194.9000<	200	-39:	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dintrotoluene	26.42	15486	195 0000<	/200	-39,	Acceptable					200	-100%	Fails	(±15)	45
2-Nitrotoluene	22.83	9684	401,4000<	400	0%	Acceptable					400	-100%	Fails	(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails	(±15)	
3-Nitrotoluene	23.35	6108	194.5000<	200	-392	Acceptable					200	-100%	Fails	(±15)	45
Nitroglycerin				200	-100%	Fails		38 67	11785	209 6000<	200	5%	Acceptable	(±15)	45
PETN				200	-100%	Fails		49.13	19084	184 7000<	200	-8%	Acceptable	(±15)	45
3.5-Dinitroanilme	25.06	13705	204 2000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
EGDN				200	-100%	Fails		18.01	9041	213 8000 🗸	200	7%	Acceptable	(±15)	45

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Comments

O mL

20 mL 1

30 WF

20 mL

20 mL

20 mL

80 mL

40 mL

0 mL

20 mL ]

20 mL

40 mL

40 mL

40 mL 1

0 mL | 1

20 mL

2 g

1

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1

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#### TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC9

| 10-JUL-2009 | 19:32 | fhk

10-JUL-2009 | 20:34 | fbk

| 10-JUL-2009 | 21:36 | fhk

| 10-JUL-2009 | 22:39 | fhk

| 10-JUL-2009 | 23:41 | flik

| 11-JUL-2009 | 00:43 | fhk

11-JUL-2009 | 01:45 | fhk | 11-JUL-2009 | 02:48 'fhk

| 11-JUL-2009 | 03.50 | fhk

| 11-JUL-2009 | 04:52 'fhk

11-JUL-2009 | 05:54 fhk

| 11-JUL-2009 | 06:57 | fhk

| 11-JUL-2009 | 07:59 | fhk

| 11-JUL-2009 | 09:01 | fhk | 11-JUL-2009 | 10:03

{ 11-JUL-2009 | 12:08 | fhk

11-JUL-2009 | 13:10 | fhk

| 11-JUL-2009 | 14:12 | fhk

| 11-JUL-2009 | 15:14 | fhk | 11-JUL-2009 | 16:16 | [thk

11-JUL-2009 | 11:06

Ehk

!fhk

Batch ID: 07102009A

Method: Method 8330

ICAL Date: See Calibration Report

; SOP WS-LC-0009 Test

| File ID | Vol or | Extract | Diln | Sample ID | Time | Operator | Date Vol | 1 | พะ [ [C-000001.] 0 g 0 mL | 1 | 10-JUL-2009 | 17:28 | fhk Primer [ 10-JUL-2009 ] 18:30 | fhk C-000002. 0 g 0 mL 19rimer

STD_5 09GCSV0238 .2K/ 1/.1/.1/|C-000003.| 0 g

[LF1EN1AA 9183251 G9G020000-251 | C-000004. | 1090 mL |

|LFXXW1AC 9183251 G9G010225-1 1|C-000005.| 1000 mL |

LFX111AC 9183251 G9G010225-3 1 C-000006. 1000 mL

LFX121AC 9183251 G9G010225-4 1 C-000007. 1000 mL

LFX151AC 9183251 G9G010225-5 1 C-000000 1000 mL

|LFX4R1AA 9189394 G9G010246-2 1 C-00001:. | 9.06 g

[LFX4T1AA 9189394 G9G010246-3 1 C-000012. | 10.01 g

|LF3H51AC 9187206 G9G030156-2 1|C-000016.| 1000 mL |

[LF3H61AC 9187206 G9G030156-3 5[C-000017.] 1000 mL

LFXQQ1AA \$188431 A9G010193-2 1 C-000020. 2.02 g

LFW791AAB 9182192 MB 1X | C-000021. | 1000 mL |

STD 5 09GCSV0238 .2K/.1/.1/.1/|C-000023. 0 g

| LEV9MLAC \$182192 G9F300242-5 1 C-000022. | 1016.72 mL | 20 mL |

|LFSWA1AA \$188431 G9G070000-431 | C-000018. | 2 g

[LEXP31AA \$188431 A9G010193-1 1[C-000019.]

|STD 6 09GCSV0054 .5K/.2/.2/ 2/[C-000013.] 0 g

LF7A31AA 9189394 G9G080000-394 C-000009. 10 g | 80 mL |

LFX4QlAA 9189394 G9G010246-1 1[C-000010 ; 10.01 g | 80 mL |

LF3161AA 9187206 G9G060000-206 C-000014. 1000 mL 20 mL |LF3H41AC 9187206 G9G030156-1 1|C-000015.| 1000 mL | 20 mL |



C-000013.D

Chromatography Summary

NONE

Injection Date:

7/11/2009 5 54

Operator: fik

DataFile:

LC9,I\07102009A B\C-000013 D

Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID:

LC9

Sample:

Matrix:

STD_6 09GCSV0054 .5K/.2/.2/.2/.2

Method File:

LC9 (\07102009A B\8330CNAB M

Start Cal Date;

6/9/2009 20:53 End Cal Date:

Dilution Factor

Extract Volume

Sample Volume

Sample Weight

6/10/2009 4.20

Samp. Info:

SubList: CAL sub

SpikeList:

ıχ

0 mL

0 mL

0 g

Misc. Info:

STD_6 09GC\$V0054 5KJ.2/2/2/2J.2,?

: 6; : . : 3; CAL.sub, , 0; 1, 0

- A Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Company of the Co	*********		Signal I U	IV 250-26	55					Signal 2 UV						
Compound Name	RT	Response	ppB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3.4-Dinitrotoluene	30 69	8487	214 0000<	200	7%	Acceptable					200	-100%	Fails		(±15)	45
нмх	34 67	7594	184.3000<	200	-8%	Acceptable					200	-100%	Fails		(±15)	45
RDX	25 16	8673	203 8000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Pierie ACID				500	-100%	Fails					500	-100%	Fails		(±15)	
1,3,5-Trantrobenzenc	21 54	13992	208.9000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Diniuobenzene	19 18	18240	207 1000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
TETRYL.	40.38	18246	209 7000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
Nitrobenzene	16.47	8291	209.4000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
2,4,6-Tanitrotoluene	32 59	16243	200 3000<	200	0%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29 08	13363	199 6000<	500	0%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	28 74	14987	201.7000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	26.81	10167	203 1000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dinitrotolvene	25 99	16528	208.1000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	22.38	10164	421,3000<	400	5%	Acceptable					400	-100%	Fails		(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails		(±15)	
3-Nitrotoluene	22 90	6323	201 4000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		38 25	11803	209,9000<	500	5%	Acceptable		(±15)	45
PETN				200	-100%	Fails		48.78	21503	208 1000<	200	4%	Acceptable		(±15)	45
3,5-Dinitroantline	24.65	13757	205 0000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN					-100%	Fails		17,80	9381	221 8000	200	11%	Acceptable		(±15)	45

Notes.

M = Manually integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 11:30 AM

C-000023.D

Chromatography Summary

Injection Date:

7/11/2009 16.16

Operator: thk

DataFile: Instrument ID: LC9 I\07102009A B\C-000023 D

Vial Num: 4

Method 8330 Target Analyte Results

Sample:

STD_5 09GCSV0238 .2K/.1/.1/.1

Method File:

Oilution Factor

1X

LC9.N07102009A B\8330CNAB M

Start Cal Date: 6/9/2009 20 53

LC9

End Cal Date:

6/10/2009 4 20

Extract Volume

Sample Volume

Sample Weight

Samp. Info:

NONE Matrix;

SubList: CAL sub \$TD_5 09GC\$V0238 .2K/ 1/ 1/ 1/.1,2

SpikeList:

0 mL

0 mL

0 g

Misc. Info:

;5;;;,3, CAL.sub;;0,1,0

Signal 1 UV 250-265

Signal 2 UV 358-205

Compound Name	RT	Response	988 988	Spike Level	%I)	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	30 65	4159	10:1.9000<	100	5%	Acceptable				2-1	100	-100%	Fails		(±15)	45
нмх	34 66	3754	9) 1000<	100	-9%	Acceptable					100	-100%	Fails		(±15)	45
RDX	25 13	4283	100 6000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
Pieric ACID				200	-100%	Fails					200	-100%	Fails		(±15)	
1,3,5-Trintrobenzene	21.50	6847	102.2000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	19.16	8905	101 1000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	40.39	8996	103 4000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	16.46	4129	104.3000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6.Trinitrotoluene	32 52	7906	97.7300<	100	-2%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	29 04	6374	102.7000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	2871	7346	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	26.77	5040	100 7000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dmitrotoluene	25.95	8071	101.6000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	22 34	5089	210.9000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene				200	-100%	Fails					200	-100%	Fails		(±15)	
3-Nîtrotoluene	22 86	3157	100.5000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		38 25	5728	101 8000<	100	2%	Acceptable		(±15)	45
PETN				100	-100%	Fails		48.84	10890	105.4000<	100	5%	Acceptable		(±15)	45
3,5-Dinitroaniline	24 62	6884	102.6000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
EGDN				100	-100%	Fails		17,7\$	4429	104 7000	100	5%	Acceptable		(±15)	45

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Colibration Ronge

Printed: 7/11/2009 5:43 PM

23KC MWOISW

## A-000015.D

Chromatography Summary

Injection Date:

7/3/2009 3:17

Operator: fik

DataFile:

LC10 (\07022009 B\A-000015 D

Vial Num: 21

6/11/2009 13.47

Method 8330 Target Analyte Results

Instrument ID:

IC10

Sample:

LFV9A1AC 9182192 G9F300242-1 1X

Method File:

LC10,I\07022009.B\8330AB.M

Start Cal Date:

Dilution Factor

1X

6/10/2009 15 33

Extract Volume

End Cal Date:

Sample Weight

Matrix: WATER SubList: WATER sub

SpikeList:

20 mL

 $1014.4\,\mathrm{mL}$ 

Sample Volume

0 g

Samp. Info: Misc. Info:

LFV9A1AC 9182192 G9F300242-1 1X,0, ;,1014 4,:20;1;WATER sub.,0,1,LFV9A1AC

Signal I UV 250-265

Signal 2 UV 358-205

Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RI.	Flag
3,4-Dinitrotoluene	18.26	0.044	6110	2,5540<		18.26	0.017	11761	2,6820		0.0000	0.00	
нмх											0 0266	010	
RDX											0 0641	0 10	
Piene ACID											0 1232	0.99	
1,3,5-Trantrobenzene	10 11	-0 106	242	0.0323<							0 0306	010	45
1,3-Dinitrobenzene								•			0 0493	0.10	
TETRYL											0 0493	0 10	
Nitrobenzene											0 0493	0.10	
2.4.6 Trimtrotoluene											0 0237	010	
4-AM-2 6-DNT								$\Omega_{i}$			0 0217	010	
2 AM-4,6-DNT							1	ND			0 0986	020	
2,6-Dimtrotoluene								1			0 0493	0.10	
2,4-Dintrotoluene											0 0493	0.10	
2-Nitrotolvene											0 0710	0 49	
4-Nitrotoluene											0 0710	0 49	
3-Nitrotolnene											0 0611	0.49	
Nuroglycenn											0 3253	0.64	
PETN											0 2957	0.64	
3.5-Dinitroaniline											0 0246	0 99	

	***** <del>*****</del> === ****		<del>*************************************</del>				
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	% Rec	Limits
3,4-Dinitrotoluene	2.4645	2,5540	104	2.4645	2.6820	109	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/7/2009 10:03 AM

23LF4MW175W A-000016.D

Chromatography Summary

Injection Date:

7/3/2009 4 07

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID;

LC10.1\07022009 B\A-000016 D LC10

Vial Num: 22

Sample:

LFV9G1AC 9182192 G9F300242-2 1X

Method File:

LC10 I\07022009 B\8330AB M

Start Cal Date:

6/10/2009 15 33 Extract Volume End Cal Date:

6/11/2009 13:47

Matrix:

SubList: WATER sub

SpikeList:

Dilution Factor

Sample Volume

Sample Weight

Samp. Info:

WATER

1X

20 mL

975.28 mL

 $0 \, \mathrm{g}$ 

Misc. Info:

1FV9GIAC 9182192 G9F300242-2 1X,0, ;;975.28;;20;1,WATER sub:.0,1,LFV9G1AC

Signal 1 UV 250-265

Signal 2 UV 358-205

-				37gmi 1 O v 230°2					Olginii Z O Y J.10-1				
	Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag MDL	RL	Fing
	3,4-Dinitrotoluene	18.24	0.023	6196	2,6940<		18.24	-0.005	11933	2,8310	0.0000	0.00	
	нмх										0 0277	0 10	
	RDX										0 0666	0.10	
	Pierie ACID										0 1282	l 03	
	1.3,5-Trimitrobenzene	10 14	-0.074	250	0.0347<						0 0318	010	45
	1,3-Dinitrobenzene										0 0513	0 10	
	TETRYL										0 0513	0.10	
	Nitrobenzene										0 0513	0.10	
	2,4,6-Prinitrotoluene										0 0246	0.10	
	4 AM-2,6-DNT								.1		0 0226	0.10	
	2 AM-4,6-DNT							1	Ü		0 1025	021	
	2.6-Dinitrotolvene							`	<b>)</b> -		0 0513	010	
	2,4-Omitrotoluene										0 0513	0.10	
	2-Nitrotoluene										0 0738	051	
	4-Nitrotoluene										0 0738	0.51	
	3-Nurotoluene										0 0636	0.51	
	Nitroglycerin										0 3384	0 67	
	PETN										0 3076	0.67	
	3,5-Dintroaniline										0 0256	1 03	

Surrogates:	Spiked	Recovered	% Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5634	2,6940	105	2.5634	2.8310	110	(79-111)

Notes.

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/7/2009 10:03 AM

23LF4MW185W A-000017.D

Chromatography Summary

WATER

Injection Date:

7/3/2009 4 58

Operator: flk

LC10 N07022009.B\A-000017.D

Yial Num: 23

Method 8330 Target Analyte Results

Instrument ID:

LCIO

Sample:

Matrix:

LFV9J1AC 9182192 G9F300242-3 1X

SpikeList:

Method File:

DataFile:

LC10 N07022009 B\\$330AB.M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13:47 Dilution Factor Sample Weight Extract Volume Sample Volume

íΧ

20 mL

1018.21 mL

0 g

Samp. Info: Misc. Info:

LFV9J1AC 9182192 G9F300242-3 1X,0,

"1018 21:;20:1;WATER.sub;;0.1;LFV9J1AC

SubList: WATER sub

Signal 2 UV 358-205 Signal I UV 250-265

			Cigner I O 1 230-2					SIGNAL E O 1 100-2	.05			
Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag MDL	RL	Flag
3,4-Dinitrotoluene	18.25	0.036	6078	2.5310<		18.25	0.009	11702	2.6590	0.0000	0.00	
нмх										0.0265	010	
RDX										0 0638	0.10	
Prene ACID										0 1228	0 98	
1,3,5-Trinutrobenzene	10 13	-0 080	276	0 0367<						0.0304	010	45
1,3-Dinitrobenzene										0 0491	01.0	
TETRYL										0 0491	0.10	
Nitrobenzene										0.0491	0 10	
2,4,6-Trinitrotoluene										0 0236	010	
4-AM-2,6-DNT										0 0216	010	
2-AM-4,6-DNT										0 0982	0.20	
2,6-Dinstrotoluene							$\mathcal{N}\mathcal{V}$			0 0491	0.10	
2,4-Dmitrotoluene										0 049 i	010	
2-Nitrotoluene										0 0707	0.49	
4-Nurotoluene										0 0707	0 49	
3-Nuroroluene										0 0609	0 49	
Mitroglycerin										0 3241	0.64	
PETN										0 2946	0 64	
3,5-Dmitroaniline										0.0246	0 93	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4553	2.5310	103	2,4553	2.6590	108	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/7/2009 10:04 AM

23LF4 MW7B

## A-000018.D

Chromatography Summary

Injection Date:

7/3/2009 5:49

Operator: fnk

Method 8330 Target Analyte Results

DataFile: Instrument ID: LC10

LC16 I/07022009 B\A-000018 D

Vlaf Num: 24

Sample:

LFV9K1AC 9182192 G9F300242-4 1X

Method File:

LC10.1\07022009 B\8330AB.M

Start Cal Date:

6/10/2009 15:33

End Cal Date:

6/11/2009 13:47

Matrix:

WATER

SubList: WATER sub

SplkeList:

Dilution Factor

Extract Volume  $20 \, \mathrm{mL}$ 

Sample Volume

1 FV9K1AC 9182192 G9F300242-4 1X,0,

iΧ

1028.11 mL

Sample Weight 0 g

Samp. Info: Misc. Info:

;;1028 11,,20,1;WATER sub;,0,1;LFV9K1AC

Signal 1 UV 250-265	Signal 2 UV 358-205
31g1A1 1 U ¥ 230*203	35 - 50 - 50 - 50 - 50 - 50 - 50 - 50 -

								C.E. C. C. C.C.					
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag A	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.028	5788	2.3870<		18.24	0,001	11100	2.4980	Ô.	0000	0.00	
нмх										1)	0263	0.10	
RIX										0	0632	0.10	
Picric ACID										0	1216	0.97	
1,3,5-Trinitrobenzene	10 17	-0.045	264	0.0348<						0	0302	0.10	45
1,3-Dinitrobenzene										0	0486	0.10	
TETRYL										0	0486	0.10	
Nurolienzene										0	0486	0.10	
2,4,6-Trinttrotoluene										0	0233	0 10	
4-AM-2 6-DNT							_			0	0214	010	
2 AM-4 6-DNT							(111			0	0973	0.19	
2,6-Dinitrotoluene							10-			0	0486	010	
2,4-Dinitrotoluene										0.0	0486	010	
2-Natrotoluene										0.4	0700	0 49	
4-Nurotoluene										0.0	0700	0.49	
3-Nitrotoluene										0	0603	0.49	
Nitroglycerin										0	3210	0.63	
PETN										0:	2918	0 63	
3,5-Dinitroaniline										0.0	0243	0 97	

						<u> </u>	
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4316	2.3870	98	2,4316		103	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/7/2009 10:04 AM

23LF 4MW 5A

## A-000021.D

Chromatography Summary

Injection Date:

7/3/2009 8 20

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: LC10 I\07022009 B\A-009021 D LCIO

Vial Num: 27

Sample:

LFV9M1AC 9182192 G9F300242-5 1X Method File:

LC10 I\07022009 B\8330AB M

Start Cal Date: 6/10/2009 15:33 Extract Volume 6/11/2009 13:47

Matrix

WATER

SubList: WATER sub

SpikeList:

**Dilution Factor** 

End Cal Date:

Samp. Info:

LFV9M1AC 9182192 G9F300242-5 1X,0;

1X

20 mL

Signal 2 UV 358-205

1016.72 mL

Sample Volume

Sample Weight 0 g

Mise. Info:

,:1016 72,;20;1;WATER sub.,t).1,LFV9M1AC

Signal 1 UV 250-265

			Dig.m. 1 0 7 230 2	.03				31Eur 7 0 1 200-5	:03				
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag	MDL	RI,	Flag
3,4-Dinitrotoluene	18.26	0.042	6206	2,5880<		18.25	0.012	11918	2.7120		0.0000	0.00	
нмх	5.30	0.009	1511	0.2460<	- \	18.25 Portra	eden	GV .			0.0266	0.10	45
RDX	7.89	0.029	16156	4.0800<	-/	Chrys. o. t.	(2.4				0.0639	0.10	45
Piene ACID					ì	Au					0 1229	0.98	
1,3,5-Trinitrobenzene	10.13	-0 081	287	0 0382<		Jul.	. LA				0 0305	0 10	45
1,3-Dinitrobenzene						1 2	1 0 1				0.0492	010	
TETRYL,						/ \	, ,				0 0492	0 10	
Nitrobenzene											0 0492	0.10	
2.4,6-Trinitrotoluene											0 0236	0.10	
4-AM-2,6-DNT											0.0216	0 10	
2-AM-4,6-DNT											0 0984	0 20	
2,6-Dinitrotoluene											0 0492	0 10	
2,4-Dinttrotoluene											0 0492	0 10	
2-Nitrotoluene											0 0708	0.49	
4-Nitrotoliicne											0.0708	0 49	
3-Nitrotoluene											0 0610	0.49	
Nitroglycerin											0 3246	0 64	
PETN											0 2951	0 64	
3,5-Dmitroambne										i	0 0246	0.98	
•													

Surcogates:	Spiked	Recovered	兒Rec	Spiked	Recovered	%Rcc	Limits
مستبنست وترازن فالتسمه ومستسب							
3,4-Dinitrotoluene	2.4589	2,5880	105	2.4589	2.7120	110	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

## C-000022.D

Chromatography Summary

WATER

Injection Date:

7/11/2009 15 14

Operator; fik

Method 8330 Target Analyte Results

DataFite:

LC9 N07102009A.B\C-000022 D

Vial Num: 28

Instrument ID:

1.09

Sample:

LFV9M1AC 9182192 G9F300242-5 1X Method File:

LC9 I\07102009A B\8330CNAB M

tart Cal Date:	6/9/2009 20:53	End Cal Date:	6/10/2009 4 20
Dilution Factor	Extract Volume	Sample Volume	Sample Weight

Samp, Infor LFV9M1AC 9182192 G9F300242-5 1X;0;

Matrix:

SubList: WATER sub

1X

1016.72 mL

0 g

Mise. Info:

:,1016.72;,20;1,WATER sub;;0;1

Stenal I I	IV 250,265

SpikeList:

20 mL

777			DIBITAL TO 1 200-2	,05				Signal 2 O V JJC	7-500				
Compound Name	RT	Diff	Response	Conc (ug/L)	Fiag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.65	-0.044	5665	2.8100<	<		1				0.0000	0.00	45
нмх	34.67	•0.007	439	0.2052<	(-)	Live	20				0.0266	0.10	45
RDX	25.15	-0.016	8165	3.7740<	10	whirm	^ '				0.0639	0.10	45
Picric ACID					,		(My)	. 5 10/4			0.1229	0.97	
1,3,5-Trantrobenzene							1/2	1800)			0.0305	0 10	
1.3-Dintrobenzene							' '				0.0492	010	
TETRYL											0.0492	0.10	
Nitrobenzene											0.0492	0.10	
2,4,6-Trinitrotoluene											0 0236	0.10	
4-AM-2.6-DNT											0 0216	0.10	
2-AM-4.6-DNT											0 0984	0 19	
2,6-Dimtrotoluene											0 0492	0.10	
2,4-Dinitrotofuene											0 0492	0.10	
2-Narotoluene											0 0708	0.48	
4-Narotolvene											0 0703	0.48	
3-Nitrotoluene											0 0610	0 48	
Nitroglycerin											0.3246	0 63	
PETN											0 2951	0.63	
3,5-Dinjiroaniline											0.0246	0.97	

Surrogates:	Spiked	Recovered	% Rec	Spiked	Recovered	%Rec	Limits
	:: <del>:::::::::::::::::::::::::::::::::::</del>					<del></del>	
3,4-Dinitrotoluene	2.4589	2.8100	114	2.4589		0	(48-143)

Notes.

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

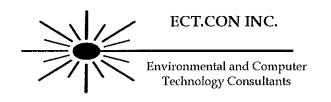
O = Over Calibration Range

Data Validation Report

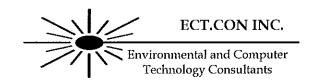
Michael Baker Jr., Inc

Camp Bonneville

**SDG#: PSF0932** 



3531 Fox Chase Drive Imperial, PA 15126 (724) 695-8042 FAX (724) 695-2698 e-mail: ectconinc@comcast.net



## **Data Validation Report**

SDG#	PSF0932
Validation Report Date	August 17, 2009
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review
Client Name	Michael Baker Jr., Inc.
Project Name	Camp Bonneville
Laboratory	TestAmerica
Analytical Parameters	Explosives
Analytical Method	SW-846 8330

Samples/Matrix:

•	ampros man											
	Date	Location	Location   Portland ID   Sacrame		Explosives	Matrix						
	Sampled			ID		***************************************						
	06/29/09	23L4MW01AW	PSF0932-01	LFXXW	X	Aqueous						
	06/29/09	23L4MW01BW	PSF0932-02	LFXX6	Х	Aqueous						
	06/26/09	23L4MW460W	PSF0932-04	LFX11	Х	Aqueous						
	06/26/09	23L4MW03BW	PSF0932-05	LFX12	Х	Aqueous						
ļ	06/26/09	23L4MW03AW	PSF0932-06	LFX15	Х	Aqueous						

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

## **SUMMARY**

The sample set for the Camp Bonneville site consists of five aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

- * Data Completeness
- * Holding Times
- Calibration (Initial and Continuing)
  - Blanks
- System Monitoring Compounds (Surrogate Spikes)
- Matrix Spike/Matrix Spike Duplicates
- Laboratory Control Standard Results
- Target Compound Identification
  - Compound Quantification and Reported Contract Quantitation Limits

# * • System Performance

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

# **FINDINGS**

## 1. Blanks

The laboratory method blank exhibited contamination for the following parameter:

Blank	Compound	Maximum	Action Limit	Action
	_	Concentration	(ppm)	
		(ppb)		
LF1EN1	1,3,5-Trinitrobenzene	0.2088	1.044	U sample results < RL

RL - reporting limit

# 2. Compound Quantitiation

Positive results less than the reporting limit were qualified as estimated "J" due to the level of uncertainty.

In sample 23L4MW03BW, the positive result below the reporting limit for HMX was not confirmed. Therefore, the form one was amended to show the result as nondetected "U" at the reporting limit.

# NOTES

# Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was not analyzed with this SDG. A laboratory control sample was analyzed. Data were not qualified on this basis.

# **Field Duplicate Results**

No field duplicates were included with this SDG. Data were not qualified on this basis.

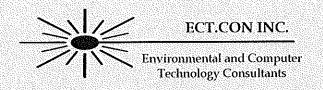
Data Reviewer

*\$[(7,(09)* Date

^{*} Criteria were met for this evaluation item.

# Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to
		confirm its presence or absence in future sampling efforts.
R	Unusable Result.	Analyte may or may not be present in the sample.
UR	Unusable Result.	Analyte may or may not be present in the sample.



# Annotated Form 1's (Spreadsheet)

Client Sample ID: PSF0932-01

HDTC 337/WMOLAM

Matrix....: WATER Lot-Sample #...: G9G010225-001 Work Order #...: LFXXW1AC

Date Sampled...: 06/29/09 Date Received..: 07/01/09 Prep Date....: 07/02/09 Analysis Date..: 07/08/09

Prep Batch #...: 9183251

Method....: SW846 8330 Dilution Factor: 0.97

		REPORTING	3	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-	ND	0.19	ug/L	0.097
dinitrotoluene				
4-Amino-2,6-	ND	0.097	ug/L	0.021
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ΆD	0.097	ug/L	0.048
HMX	.ND	0.097	ug/L	0.026
Nitrobenzene	'nD	0.097	ug/L	0.048
2-Nitrotoluene	MD	0.39	ug/L	0.070
3-Nitrotoluene	ND	0.39	ug/L	0.060
4-Nitrotoluene	ND	0.48	ug/L	0.070
RDX	0.13	0.097	ug/L	0.063
Tetryl	ŃD	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	4.033 J	0.097 🖰	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS	_	
3,4-Dinitrotoluene	91	(79 - 111	}	



J Estimated result Result is less than RL.

Client Sample ID: PSF0932-02

HPLC.

3574WMORPM

Lot-Sample #...: G9G010225-002 Work Order #...: LFXX61AC Matrix..... WATER

Date Sampled...: 06/29/09 Date Received..: 07/01/09

Prep Date....: 07/02/09 Analysis Date..: 07/08/09

Prep Batch #...: 9183251

Dilution Factor: 0.97 Method.....: SW846 8330

		REPORTING		
PARAMETER	RESULT	LIMIT	UNITS	MDL MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-	ND	0.19	ug/L	0.097
dinitrotoluene				
4-Amino-2,6-	ND	0.097	ug/L	0.021
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048
HMX	ND	0.097	ug/L	0.026
Nitrobenzene	ND	0.097	ug/L	0.048
2-Nitrotoluene	ND	0.39	ug/L	0.070
3-Nitrotoluene	ND	0.39	ug/L	0.060
4-Nitrotoluene	ND	0.48	ug/L	0.070
RDX	'AD'	0.097	ug/L	0.063
Tetryl	MD	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	-0:033 JF -S	0.,097 🔰	ug/L	0.030
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	93	(79 - 111	<u>)</u>	



J Estimated result. Result is less than RL.

# Client Sample ID: PSF0932-04

HPLC 23L4MW 460W

Lot-Sample #...: G9G010225-003 Work Order #...: LFX111AC Matrix...... WATER

Date Sampled...: 06/26/09 Date Received..: 07/01/09
Prep Date....: 07/02/09 Analysis Date..: 07/08/09

Prep Batch #...: 9183251

Dilution Factor: 0.97 Method.....: SW846 8330

		REPORTIN	1G	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.63	ug/L	0.15
PETN	ND	0.63	ug/L	0.22
Picric Acid	ND	0.97	ug/L	0.12
2-Amino-4,6-	ND	0.19	ug/L	0.097
dinitrotoluene				
4-Amino-2,6-	ND	0.097	ug/L	0.021
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048
2,4-Dinitrotoluene	ND	0.097	ug/L	0.048
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048
HMX	0.029 x T	0.097	ug/L	0.026
Nitrobenzene	ИD	0.097	ug/L	0.048
2-Nitrotoluene	.ND	0.39	ug/L	0.070
3-Nitrotoluene	ЯD	0.39	ug/L	0.060
4-Nitrotoluene	ИD	0.48	ug/L	0.070
RDX	\$.I	0.097	ug/L	0.063
Tetryl	.XD	0.097	ug/L	0.048
1,3,5-Trinitrobenzene	ΉD.	0.097	ug/L	0.030
2,4,6-Trinitrotoluene	:ND	0.097	ug/L	0.023
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	93	(79 - 11	1)	

J Estimated result. Result is less than RL.



# Client Sample ID: PSF0932-05

23L4 MW 03BW

HPL

Lot-Sample #...: G9G010225-004 Work Order #...: LFX121AC Matrix...... WATER

Date Sampled...: 06/26/09 Date Received..: 07/01/09
Prep Date....: 07/02/09 Analysis Date..: 07/08/09

Prep Batch #...: 9183251

Dilution Factor: 0.98 Method.....: SW846 8330

		REPORTING	}	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	ND	0.64	ug/L	0.15
PETN	ND	0,64	ug/ь	0.23
Picric Acid	ND	0.98	ug/L	0.12
2-Amino-4,6-	ND	0.20	ug/L	0.098
dinitrotoluene				
4-Amino-2,6-	ND	0.098	ug/L	0.022
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.098	ug/L	0.049
2,4-Dinitrotoluene	ND	0.098	ug/L	0.049
2,6-Dinitrotoluene	ND	0.098	ug/L	0.049
HMX	0.027 7	0.098 🖰	ug/L	0.026
Nitrobenzene	ND	0.098	ug/L	0.049
2-Nitrotoluene	<u>.</u> ND	0.39	ug/L	0.071
3-Nitrotoluene	ND	0.39	ug/L	0.061
4-Nitrotoluene	ИD	0.49	ug/L	0.071
RDX	<b>4.1</b> .	0.098	ug/L	0.064
Tetryl	ИD	0.098	ug/L	0.049
1,3,5-Trinitrobenzene	.ND	0.098	ug/L	0.030
2,4,6-Trinitrotoluene	ИD	0.098	ug/L	0.024
	PERCENT	RECOVERY		
SURROGA'TE	RECOVERY	LIMITS	_	
3,4-Dinitrotoluene	93	(79 - 111)	)	

J Estimated result. Result is less than RL.



Client Sample ID: PSF0932-06

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WASOWMUSS .

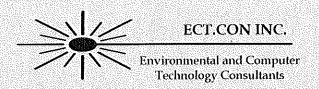
Lot-Sample #...: G9G010225-005 Work Order #...: LFX151AC Matrix..... WATER

Date Sampled...: 06/26/09 Date Received..: 07/01/09
Prep Date....: 07/02/09 Analysis Date..: 07/08/09

Prep Batch #...: 9183251

Dilution Factor: 0.97 Method.....: SW846 8330

Dilution Factor: 0.97	Method: SW846 8330				
		REPORTIN	īG		
PARAMETER	RESULT	<u>LIMIT</u>	UNITS	MDL	
Nitroglycerin	ND	0.63	ug/L	0.15	
PETN	ND	0.63	ug/L	0.22	
Picric Acid	ND	0.97	ug/L	0.12	
2-Amino-4,6-	ND	0.19	ug/L	0.097	
dinitrotoluene					
4-Amino-2,6-	ND	0.097	ug/L	0.021	
dinitrotoluene					
1,3-Dinitrobenzene	ND	0.097	ug/L	0.048	
2,4-Dinitrotoluene	MD	0.097	ug/L	0.048	
2,6-Dinitrotoluene	ND	0.097	ug/L	0.048	
HMX	0.38	0.097	ug/L	0.026	
Nitrobenzene	ИD	0.097	ug/L	0.048	
2-Nitrotoluene	ЙD	0.39	ug/L	0.070	
3-Nitrotoluene	ΆD	0.39	ug/L	0.060	
4-Nitrotoluene	ND	0.48	ug/L	0.070	
RDX	9.4	0097	ug/L	0.063	
Tetryl	MD	0.097	ug/L	0.048	
1,3,5-Trinitrobenzene	ND	0.097	ug/L	0.030	
2,4,6-Trinitrotoluene	ND	0.097	ug/L	0.023	
	PERCENT	RECOVERY			
SURROGATE	RECOVERY	LIMITS			
3,4-Dinitrotoluene	95	(79 - 11	1)		



# Support Documentation

# Laboratory Case Narrative



# DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc. James D. Peyton 5261 Fountain Drive, Suite A Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater Client Project Number: 110002 Task 6200

TA Work Order#: PSF0932

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

163

July 31, 2009

TestAmerica - Portland 9405 S. W. Nimbus Avenue Beaverton, Oregon 97008 (503) 906-9200 (503) 906-9210



# **CASE NARRATIVE**

Client:

Michael Baker Jr., Inc.

110002 Task 6200

Date Sampled:

6/26/2009 and

6/29/2009

Project:

Camp Bonneville Groundwater

Date Received:

6/29/2009

Lab:

PSF0932

SAMPLE RECEIPT:

Samples were received intact, on ice, with chain of custody

documentation. The sample temperature was measured at 2.3° C upon

receipt at the laboratory.

**HOLDING TIMES:** 

All samples were analyzed within holding times.

PROBLEMS

**ENCOUNTERED:** 

No problems were encountered.

QA/QC CRITERIA:

No problems were encountered during sample analysis.

**OBSERVATIONS:** 

No significant observations were made.

SUBCONTRACTED:

314.0_9196313 (Perchlorate), 314.0_9196314 (Perchlorate), and SW846

8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package for the specified analyses is

included in this data deliverables package as Appendix A.

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

TestAmerica Portland

Estella Rieben Project Manager

Page 1



THE LEADER IN ENVIRONMENTAL TESTING

Michael Baker Jr., Inc.

Crown Point, IN 46307

5261 Fountain Drive, Suite A

PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

Project Name: Camp Bonneville Groundwater

Project Number: 110002 Task 6200 Project Manager: James D. Peyton Report Created: 07/21/09 08:53

# ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23L4MW01AW	PSF0932-01	Water	06/29/09 10:35	06/29/09 17:00
23L4MW01BW	PSF0932-02	Water	06/29/09 14:40	06/29/09 17:00
TB-261	PSF0932-03	Water	06/29/09 00:00	06/29/09 17:00
23L4MW460W	PSF0932-04	Water	06/26/09 15:00	06/29/09 17:00
23L4MW03BW	PSF0932-05	Water	06/26/09 17:15	06/29/09 17:00
23L4MW03AW	PSF0932-06	Water	06/26/09 18:15	06/29/09 17:00

TestAmerica Portland

Estella K Kuben

Estella Rieben, Project Manager



July 28, 2009

TestAmerica Project Number: G9G010225

PO/Contract: PSF0932

Estella Rieben TestAmerica Portland Nimbus Corporate Center 9405 SW Nimbus Ave Beaverton, OR 97008

Dear Ms. Rieben,

This report contains the analytical results for the samples received under chain of custody by TestAmerica on July 1, 2009. These samples are associated with your Michael Baker Jr., Inc. project.

The test results in this report meet all NELAC requirements for parameters that accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The case narrative is an integral part of this report.

If you have any questions, please feel free to call me at (916) 374-4362.

Sincerely,

Linda C. Laver **Project Manager** 

Sinda C Faire

# **Case Narrative**

# TestAmerica West Sacramento Project Number G9G010225

## **General Comments**

The chain of custody (coc) indicates that the samples containers were preserved with Hydrochloric Acid (HCL). These analyses do not require acid preservation. The pH of the samples was checked and they were at a pH of 7. According to Ms. Rieben, the coc was incorrect and the samples were not preserved.

# WATER, 8330, Nitroaromatics & Nitramines

Samples: 1, 2, 3, 4, 5

There was insufficient sample volume to prepare a matrix spike/matrix spike duplicate (MS/MSD) pair with this extraction batch.

There are no other anomalies associated with this project.

# **Sample Summary**

# TestAmerica West Sacramento Project Number G9G010225

<u>w</u> o#	Sample #	Client Sample ID	Sampling Date	Received Date
LFXXW	1	PSF0932-01	6/29/2009 10:35 AM	7/1/2009 09:45 AM
LFXX6	2	PSF0932-02	6/29/2009 02:40 PM	7/1/2009 09:45 AM
LFX11	3	PSF0932-04	6/26/2009 03:00 PM	7/1/2009 09:45 AM
LFX12	4	PSF0932-05	6/26/2009 05:15 PM	7/1/2009 09:45 AM
LFX15	5	PSF0932-06	6/26/2009 06:15 PM	7/1/2009 09:45 AM

# Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight

# Chain of Custody

# **lestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

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425 420-9200 F.N. 420-4210 [ ] with 624 9200 F.N. 924 9290 [ ]

TA WO ID Work Order #: PSF-095 * Inenaminal Regio systems than standard race a see Riese Charge DATE 6/297 TURNAROUND REQUEST TIME 6 No 716 NO 7165 6 NO 71CS 111 LOCATION; COMMENTS 16 No 7165 TIME 6 NOTICS in Business Days " OTHER Specify: #OF. MATRIX (W. S. O) ≯ 3 6200 CHAIN OF CUSTODY REPORT RECEIVED BY: RECEIVED BY: PRINT NAME. REQUESTED ANALYSES PO. NUMBER. 110002 TASK PRESERVATIVE F. SAME ADDRESS EXPESSIVES PERCHLAGATE INVOICE TO: BAKER TIME: 15,15 DATE: \$12919 -HCL - - KA - - NA-DATE: 6/25/09 8330 VOCS EPA BYZOB NO TICS PIRME PAKER 4/21/209 - 14:40 PHONE: 219 736 C 2 43 FAX: 219 755 6233 4/29/2007-10.35 6/27/09 - N/A 23 LYMW03AW 6/2669-1815 23 LY MWO3 BW 6/24/09-1715 2314 MW460W 6/26/09-1500 ADDRESS 526 (For LIAN DONE, Some A CORNESS 526 (For LIAN DONE) Some A SAMPLING DATE/TIME CLIENT STUMBEL BAKER IP IN 23LY MWOIBW 23L4MWOIAW CLIENT SAMPLE IDENTIFICATION PRINT NAME: WILLIAM TB-261 RELEASED BY: Contact RFLEASED BY: 1300 PROJECT NUMBER: ADDITIONAL REMARKS. PROJECT NAME: SAMPLED BY:

# TestAmerica Portland Sample Receiving Checklist

	k Ord nt Na	me and Project: Michael Baker
	Zone: OT/ES	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s
Сc	oler #( peratur	es:
N/A	Yes	No Initials: ME
		1. If ESI client, were temp blanks received? If no, document on NOD.
<u>.</u> E)`		2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD.
		3. Chain of Custody present? If no, document on NOD.
	<b>P</b>	4. Bottles received intact? If no, document on NOD.
	Æ	5. Sample is not multiphasic? If no, document on NOD.
		6. Proper Container and preservatives used? If no, document on NOD.
		7. pH of all samples checked and meet requirements? If no, document on NOD.
		8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM.
		9. HF Dilution required?
	$\square$	10. Sufficient volume provided for all analysis? If no, document on NOD and consult
	. [3]	PM before proceeding.  11. Did chain of custody agree with samples received? If no, document on NOD.
		12. Is the "Sampled by" section of the COC completed?
		13. Were VOA/Oil Syringe samples without headspace?
		14. Were VOA vials preserved? HCl Sodium Thiosulfate Ascorbic Acid
		15. Did samples require preservation with sodium thiosulfate?
		16. If yes to #14, was the residual chlorine test negative? If no, document on NOD.
		17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD.
		18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If
		no, document on NOD and contact PM before proceeding.  19. Are analyses with short holding times received in hold?
		20. Was Standard Turn Around (TAT) requested?
	<del>[2]</del>	21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM.

# Sample Receiving Checklist

Work Order #: <u>PSF-0932</u>

Log	in Ch	hecks:	Initials:BVE
N/A	Yes	No	
	Ø	22. Sufficient volume provided for all analysis? If no, docur	nent on NOD & contact PM
		23. Sufficient volume provided for client requested MS/MS.	
		no, document on NOD and contact PM.	
		24. Did the chain of custody include "received by" and "reli	nquished by" signatures,
	1	dates and times?	
		25. Were special log in instructions read and followed?	
		26. Were tests logged checked against the COC?	
		27. Were rush notices printed and delivered?	
B		28. Were short hold notices printed and delivered?	
		29. Were subcontract COCs printed?	
		30. Was HF dilution logged?	
Lab	eling	and Storage Checks:	Initials:
ΝA	Yes	No	
	<b>P</b>	31. Were the subcontracted samples/containers put in Sx frid	ge?
<b>\</b> \		32. Were sample bottles and COC double checked for dissolve	~
		33. Did the sample ID, Date, and Time from label match wha	
		34. Were Foreign sample stickers affixed to each container at	
		foreign fridge?	
		35. Were HF stickers affixed to each container, and container	s stored in Sx fridge?
		36. Was an NOD for created for noted discrepancies and place	
Docun form (	nent ar NOD).	my problems or discrepancies and the actions taken to resolve them	



# LOT RECEIPT CHECKLIST TestAmerica West Sacramento

CLIENT 4141	-portland	PM LU LI	0G# <u>59</u>	483
LOT# (QUANTIMS ID)	-portland 6967016225 or	ЈОТЕ# <u>*%3765</u>	_LOCATION_	WSB
DATE RECEIVED	7-1-09 TIME RECEIVED_	945	Initials	Date 7-1-09
DELIVERED BY	FEDEX CA OVERNIGHT AIRBORNE GOLDENSTATE BAX GLOBAL TAL COURIER VALLEY LOGISTIC OTHER	☐ CLIENT ☐ DHL ☐ GO-GETTERS S ☐ MORGAN HILL CO		
CUSTODY SEAL STAT	US PINTACT [BROKEN [N	/A	<del></del>	
SHIPPPING CONTAINSTEMPERTURE RECOF	ER(S) DTAL CLIENT RD(IN°C) IR 4 5 0 0	OTHER		
COC #(S) TEMPERATURE BLAN	K Observed: 6 Corre			
SAMPLE TEMPERATU	36	**		
	2_ Average: Z_Corrected			
COLLECTOR'S NAME	☐ Verified from COC ☐ No	ot on COC		
pH MEASURED	✓ YES ANOMAL)	1 -1-09 		
			<del></del>	
LABELS CHECKED BY. PEER REVIEW				
SHORT HOLD TEST NO	WET	PLE RECEIVING CHEM   1 N/A ENCORES   N/A		
☐ METALS NOTIFIED (	OF FILTER/PRESERVE VIA VERBAL & EI			
COMPLETE SHIPME APPROPRIATE TEM	ENT RECEIVED IN GOOD CONDITION WI PERATURES, CONTAINERS, PRESERVA	ITH N/A ATIVES		
☐ CLOUSEAU	☐ TEMPERATURE EXCEEDED (2 °C	;-6°C)" [] N/A	$-\psi$	
☐ WET ICE	☐ BLUE ICE ☐ GEL PACK ☐ NO	COOLING AGENTS US	ED PN	I NOTIFIED
PISTAGE	2 6th pt of 7,000	lists HC		<del></del>
	,			

^{. *1} Acceptable temperature range for State of Wisconsin samples is<4°C

# Worksheets

## HOLDING TIMES

			Sacramento Lab			
SAMPLE DATE	SAMPLE ID	Portland LAB ID	IĐ	Matrix	Prep	Anal
06/29/09	23L4MW01AW	PSF0932-01	LFXXW	Aq	07/02/09	7/8/09 1X
06/29/09	23L4MW01BW	PSF0932-02	LFXX6	Λq	07/02/09	7/8/09 1X
06/26/09	23L4MW460W	PSF0932-04	LFX11	Aq	07/02/09	7/8/09 1X
06/26/09	23L4MW03BW	PSF0932-05	LFX12	Aq	07/02/09	7/8/09 1X
06/26/09	23L4MW03AW	PSF0932-06	LFX15	Aq	07/02/09	7/8/09 1X

7

days from collection to extraction

Sample Date

Extract By

7/3/2009

Sample Date

days from collection to extraction

7/6/2009

Sample Date

6/29/2009

40

days fromextraction to analysis 7/2/2009

6/26/2009

Extract By Extract By

8/11/2009

No

NA

No

NA

## TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client? Did Sample Form 1s match the target compound list Were required quantitation limits provided by the client? Did all compounds meet the required quantitation limits?

### SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN I	DF	ACTION
All IN	i			

Were surrogate RTs within windows established by the ICAL? Were there any transcription errors between the raw data and Form 2? Were laboratory acceptance limits used as the basis for validation?

Yes No 30-150

Did the laboratory provide CLP Form II or equivlaent?

Yes

# 01AW

1	1	AMOUNT		
SURR	AMOUNT FOUND	SPIKED	% R	F1
34-DNT A	2.233	2.5	89.3	91
34-DNT C	2.456	2.5	98.2	

# MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

# NonePresent

# LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION
LFIENI	All Parameters	OK	NA	NA	none, ND

Were laboratory acceptance limits used as the basis for validation?

Yes

Did the laboratory provide CLP Form III or equivlaent?

Yes

Were chromatograms and quan reports present for all LCS/LCDs?

RDX LFIENI

		AMOUNT						
All Parameters	AMOUNT FOUND	SPIKED	% R	FORM 3				
LCS	0.97	1	97.0	127				
0/D //								

[%]R = (Amount Found/Amount Spiked)*100

# BLANKS

BLANK	COMPOUND	RESULT	5X OR 10X	ACTION LEVEL	ACTION
LFIENI	123-Tubenzene	0.2088	5	1.044	U

appears on A channel but not on C

NOTE Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

		CALIBRATION			
Initial					
	quan reports present for all ICAI	standards?		Yes	
	iivalent present and complete?			Yes	
Any transcription or calculation errors?					
What linearity criteria v	20% RSD or 0.99				
Were RT window docur	mented?			Yes	
Continuing					
	quan reports present for all CCV	standards?		Yes	
	equivalent present and complete?			Yes	
Any transcription or cal				No	
What %D criteria was u		-1.C		25% D	
Was a proper analytical	andards been listed on an Analytic sequence followed?	cai Sequence?		Yes Yes	
INITIAL CALIBRATI	ION - A				
Date	6/10/2009	Rptd Avg CF	77.89163	Rptd %RSD	5,156
Instrument	Α	Calcd Avg CF	77.892	Cald %RSD	5.156
Compound	RDX				
Reported CF	80.13	CF1	81.80	STD DEV	4
Calculated CF	80.42	CF2	75.90		
		CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
		CF6	80.13		
	CF = (H/C)	CF7	69.168	%RSD = (Std Dev	/Avg CF)*100
CONTINUING CALIB	RATION A	CF8	79.815		
5.	7/0/2000		•		
Date	7/8/2009 1750				
Time Instrument	1730 A				
Compound	HMX				
Reported Conc	212	Rptd %D	6	•	
Calculated Conc	211.653	Cald %D	-5.83		
Response	25610	ICAL CF	200		
CF	121	CCV CF	211.7		
	CF = (IVC)	%Difference = ((10	CAL - CCV)/ICA	AL)*100	
INITIAL CALIBRATIO	ON - C				
Date	6/9/2009	Rptd Avg CF	42.55812	Rptd %RSD	4.852
Instrument	C	Calcd Avg CF	42.558	Cald %RSD	4.852
Compound	RDX	_			
Reported CF	42,585	CF1	45.40	STD DEV	2
Calculated CF	42.78	CF2	43.70		
		CF3	42.75		
Response	8556	CF4	43.30		
Conc	200	CF5	42.16		
	or – auto	CF6	42.59	0/DCD /Cd D	3 OE\\$100
	CF = (H/C)	CF7 CF8	38.118 42.452	%RSD = (Std Dev/	Avg Cr)*100
CONTINUING CALIB	RATION C		.22		
Date	7/10/2009				
Time	1932				
Instrument	C				
Compound	HMX				
Reported Conc	82.89	Rptd %D	17		
Calculated Conc	82.894	Cald %D	17.11		

Response CF 3416

41.20913

CF = (H/C)

100 82.9

%Difference = ((ICAL - CCV)/ICAL)*100

ICAL CF

CCV CF

		FIELD D	UPLICATES	
COMPOUND	SAMPLE	QUALIFIER	DUPLICATE	QUALIFIER RP
PCA				#DI
NOTES	Samples are not qualif	ied on this basis.		
	COM	POUND IDENTIFICA	TION AND QUAN	TITATION
as a F10 been comple	ted for every sample cont	aining positive results?		Yes
Vas RT data presented				NA
re RTs within the esta				Yes
ny transcription or cal				No
	ative peaks, shouldering,			No
	on needed for results > 10			NA
	es or relative percent diffe	rences calculated?		NA NA
•	RPDs greater than 25%?			NA No
re there any transcript	ion errors? all field and quality conti	ol camplac?		No No
•	an field and quarry cond I quan reports present for	•		Yes
	lect sample dilutions, per			Yes
or soils, any precent so		icin sonas, cic		No
or soils, any precent so				No
31.4MW01AW RDX 0	.13 μg/L			
	A	С		
response	524	269		
cf	77.89163	42,55812		
final vol ml	20	20		
initial L	1.02157	1.02157		
df	1	1		
calculated	0.1317	0.1237		

PERCENT	DIFF	ERENCE	BET	WEEN	COLUMNS

SAMPLE	COMPOUND	A	С	RPD	QUALIFIER
23L4MW01AW	RDX	0.1317	0.1237	6.3	none
23L4MW460W	HMX	0.028	0.0422	-40.5	none
	RDX	4.125	3.799	8.2	none
23L4MW03BW	HMX	0.0278	not confirmed	#VALUE!	none
	RDX	4.089	3.71	9.7	none
23L4MW03AW	HMX	0.3798	0.3908	-2.9	none
·	RDX	9.369	8.736	7.0	none

0.1237

0.1317

calculated

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

# HPLC

Client Lot #...: G9G010225 Work Order #...: LF1EN1AC Matrix...... WATER

LCS Lot-Sample#: G9G020000-251

Prep Date....: 07/02/09 Analysis Date..: 07/08/09

Prep Batch #...: 9183251

Dilution Factor: 1

PARAMETER         RECOVERY         LIMITS         METHOD           Nitroglycerin         98         (85 - 115)         SW846 8330           PETN         104         (84 - 117)         SW846 8330           Picric Acid         66         (21 - 118)         SW846 8330           2-Amino-4,6-         97         (77 - 123)         SW846 8330           dinitrotoluene           4-Amino-2,6-         91         (68 - 113)         SW846 8330
PETN 104 (84 - 117) SW846 8330 Picric Acid 66 (21 - 118) SW846 8330 2-Amino-4,6- 97 (77 - 123) SW846 8330 dinitrotoluene 4-Amino-2,6- 91 (68 - 113) SW846 8330
Picric Acid 66 (21 - 118) SW846 8330 2-Amino-4,6- 97 (77 - 123) SW846 8330 dinitrotoluene 4-Amino-2,6- 91 (68 - 113) SW846 8330
2-Amino-4,6- 97 (77 - 123) SW846 8330 dinitrotoluene 4-Amino-2,6- 91 (68 - 113) SW846 8330
dinitrotoluene 4-Amino-2,6- 91 (68 - 113) SW846 8330
4-Amino-2,6- 91 (68 - 1.13) SW846 8330
dinitrotoluene
1,3-Dinitrobenzene 98 (72 - 123) SW846 8330
2,4-Dinitrotoluene 94 (70 - 119) SW846 8330
2,6-Dinitrotoluene 95 (71 - 119) SW846 8330
HMX 91 (67 - 135) SW846 8330
Nitrobenzene 94 (69 - 119) SW846 8330
2-Nitrotoluene 87 (64 - 120) SW846 8330
3-Nitrotoluene 89 (67 - 114) SW846 8330
4-Nitrotoluene 89 (67 - 115) SW846 8330
RDX 97 (68 - 122) SW846 8330
Tetryl. 77 (66 - 105) SW846 8330
1,3,5-Trinitrobenzene 106 (74 - 120) SW846 8330
2,4,6-Trinitrotoluene 88 (69 - 111) SW846 8330
PERCENT RECOVERY
SURROGATE RECOVERY LIMITS
3,4-Dinitrotoluene 93 (79 - 111)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

## LABORATORY CONTROL SAMPLE DATA REPORT

## HPLC

Client Lot #...: G9G010225 Work Order #...: LF1EN1AC Matrix.....: WATER

LCS Lot-Sample#: G9G020000-251

Prep Date....: 07/02/09 Analysis Date..: 07/08/09

Prep Batch #...: 9183251

Dilution Factor: 1

PETN         5.00         5.18         ug/L         104         SW846 8330           Picric Acid         5.00         3.28         ug/L         66         SW846 8330           2-Amino-4,6-         1.00         0.974         ug/L         97         SW846 8330           dinitrotoluene         1.00         0.909         ug/L         91         SW846 8330           dinitrotoluene         1.00         0.976         ug/L         98         SW846 8330           2,4-Dinitrotoluene         1.00         0.936         ug/L         94         SW846 8330           2,6-Dinitrotoluene         1.00         0.946         ug/L         95         SW846 8330           HMX         1.00         0.914         ug/L         91         SW846 8330           Nitrobenzene         1.00         0.943         ug/L         94         SW846 8330           2-Nitrotoluene         1.00         0.869         ug/L         87         SW846 8330           3-Nitrotoluene         1.00         0.888         ug/L         89         SW846 8330           4-Nitrotoluene         1.00         0.892         ug/L         89         SW846 8330		SPIKE	MEASURED		PERCENT	
PETN         5.00         5.18         ug/L         104         SW846 8330           Picric Acid         5.00         3.28         ug/L         66         SW846 8330           2-Amino-4,6-         1.00         0.974         ug/L         97         SW846 8330           dinitrotoluene         1.00         0.909         ug/L         91         SW846 8330           dinitrotoluene         1.00         0.976         ug/L         98         SW846 8330           2,4-Dinitrotoluene         1.00         0.936         ug/L         94         SW846 8330           2,6-Dinitrotoluene         1.00         0.946         ug/L         95         SW846 8330           HMX         1.00         0.914         ug/L         91         SW846 8330           Nitrobenzene         1.00         0.943         ug/L         94         SW846 8330           2-Nitrotoluene         1.00         0.869         ug/L         87         SW846 8330           3-Nitrotoluene         1.00         0.888         ug/L         89         SW846 8330           4-Nitrotoluene         1.00         0.892         ug/L         89         SW846 8330	PARAMETER	TRUOMA	AMOUNT	UNITS	RECOVERY	METHOD
Picric Acid       5.00       3.28       ug/L       66       SW846 8330         2-Amino-4,6-       1.00       0.974       ug/L       97       SW846 8330         dinitrotoluene       1.00       0.909       ug/L       91       SW846 8330         dinitrotoluene       1.00       0.976       ug/L       98       SW846 8330         2,4-Dinitrotoluene       1.00       0.936       ug/L       94       SW846 8330         2,6-Dinitrotoluene       1.00       0.946       ug/L       95       SW846 8330         HMX       1.00       0.914       ug/L       91       SW846 8330         Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330	Nitroglycerin	5.00	4.92	ug/L	98	SW846 8330
2-Amino-4,6- 1.00 0.974 ug/L 97 SW846 8330 dinitrotoluene 4-Amino-2,6- 1.00 0.909 ug/L 91 SW846 8330 dinitrotoluene 1,3-Dinitrobenzene 1.00 0.976 ug/L 98 SW846 8330 2,4-Dinitrotoluene 1.00 0.936 ug/L 94 SW846 8330 2,6-Dinitrotoluene 1.00 0.946 ug/L 95 SW846 8330 HMX 1.00 0.914 ug/L 91 SW846 8330 Nitrobenzene 1.00 0.943 ug/L 91 SW846 8330 2-Nitrotoluene 1.00 0.869 ug/L 94 SW846 8330 3-Nitrotoluene 1.00 0.888 ug/L 87 SW846 8330 4-Nitrotoluene 1.00 0.892 ug/L 89 SW846 8330 4-Nitrotoluene 1.00 0.892 ug/L 89 SW846 8330	PRTN	5.00	5.18	ug/L	104	SW846 8330
dinitrotoluene         4-Amino-2,6       1.00       0.909       ug/L       91       SW846 8330         dinitrotoluene       1.3-Dinitrobenzene       1.00       0.976       ug/L       98       SW846 8330         2,4-Dinitrotoluene       1.00       0.936       ug/L       94       SW846 8330         2,6-Dinitrotoluene       1.00       0.946       ug/L       95       SW846 8330         HMX       1.00       0.914       ug/L       91       SW846 8330         Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330	Picric Acid	5.00	3.28	ug/L	66	SW846 8330
4-Amino-2,6       1.00       0.909       ug/L       91       SW846 8330         dinitrotoluene       1.3-Dinitrobenzene       1.00       0.976       ug/L       98       SW846 8330         2,4-Dinitrotoluene       1.00       0.936       ug/L       94       SW846 8330         2,6-Dinitrotoluene       1.00       0.946       ug/L       95       SW846 8330         HMX       1.00       0.914       ug/L       91       SW846 8330         Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330		1.00	0.974	ug/L	97	SW846 8330
dinitrotoluene       1.00       0.976       ug/L       98       SW846 8330         2,4-Dinitrotoluene       1.00       0.936       ug/L       94       SW846 8330         2,6-Dinitrotoluene       1.00       0.946       ug/L       95       SW846 8330         HMX       1.00       0.914       ug/L       91       SW846 8330         Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330						
1,3-Dinitrobenzene       1.00       0.976       ug/L       98       SW846 8330         2,4-Dinitrotoluene       1.00       0.936       ug/L       94       SW846 8330         2,6-Dinitrotoluene       1.00       0.946       ug/L       95       SW846 8330         HMX       1.00       0.914       ug/L       91       SW846 8330         Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330	-	1.00	0.909	ug/L	91	SW846 8330
2,4-Dinitrotoluene       1.00       0.936       ug/L       94       SW846 8330         2,6-Dinitrotoluene       1.00       0.946       ug/L       95       SW846 8330         HMX       1.00       0.914       ug/L       91       SW846 8330         Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330	dinitrotoluene					
2,6-Dinitrotoluene       1.00       0.946       ug/L       95       SW846 8330         HMX       1.00       0.914       ug/L       91       SW846 8330         Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330	1,3-Dinitrobenzene	1.00	0.976	ug/L	98	SW846 8330
HMX       1.00       0.914       ug/L       91       SW846 8330         Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330	2,4-Dinitrotoluene	1.00	0.936	ug/L	94	SW846 8330
Nitrobenzene       1.00       0.943       ug/L       94       SW846 8330         2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330	2,6-Dinitrotoluene	1.00	0.946	ug/L	95	SW846 8330
2-Nitrotoluene       1.00       0.869       ug/L       87       SW846 8330         3-Nitrotoluene       1.00       0.888       ug/L       89       SW846 8330         4-Nitrotoluene       1.00       0.892       ug/L       89       SW846 8330	HMX	1.00	0.914	ug/L	91	SW846 8330
3-Nitrotoluene 1.00 0.888 ug/L 89 SW846 8330 4-Nitrotoluene 1.00 0.892 ug/L 89 SW846 8330	Nitrobenzene	1.00	0.943	ug/L	94	SW846 8330
4-Nitrotoluene 1.00 0.892 ug/L 89 SW846 8330	2-Nitrotoluene	1.00	0.869	ug/L	87	SW846 8330
	3-Nitrotoluene	1.00	0.888	ug/L	89	SW846 8330
**************************************	4-Nitrotoluene	1.00	0.892	ug/L	89	SW846 8330
xDx 1.00 0.970 ug/L 97 5W846 8330	RDX	1.00	0.970	ug/L	97	SW846 8330
Tetryl 1.00 0.772 ug/L 77 SW846 8330	Tetryl	1.00	0.772	ug/L	77	SW846 8330
1,3,5-Trinitrobenzene 1.00 1.06 ug/L 106 SW846 8330	1,3,5-Trinitrobenzene	J., 00	1.06	ug/L	1.06	SW846 8330
2,4,6-Trinitrotoluene 1.00 0.880 ug/L 88 SW846 8330	2,4,6-Trinitrotoluene	1.00	0.880	ug/L	88	SW846 8330
PERCENT RECOVERY			PERCENT	RECOVERY		
SURROGATE RECOVERY LIMITS	SURROGATE		RECOVERY			
3,4-Dinitrotoluene 93 (79 - 111)	3,4-Dinitrotoluene		Party	***************************************	•	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# METHOD BLANK REPORT

# HPLC

Client Lot #...: G9G010225 Work Order #...: LF1EN1AA Matrix..... WATER

MB Lot-Sample #: G9G020000-251

Prep Date....: 07/02/09

Dilution Factor: 1

		REPORTI	NG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-	ND	0.20	ug/L	SW846 8330
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	SW846 8330
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330
	PERCENT	RECOVERY	<u>'</u>	
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	94	(79 - 1.1	.1)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results

A-000004.D

X

Chromatography Summary

Injection Date: DataFile: 7/8/2009 18 41

Operator: Ink

Vial Num: 11

Method 8330 Target Analyte Results

Instrument ID:

LCIA

1111111111

Sample:

Matrix:

LF1EN1AA 9183251 G9G020000-251

**B** 1X

WATER

SubList: WATER.sub

SpikeList:

Samp. Info: Misc. Info: LPIENIAA 9183251 G9G020000-251 B 1X,0, ;,1000,,20;1;WATER sub.,0,1;LFIENIAA

Method I	Pile:
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LC10 I\07082009.B\8330AB M

LC10 N07082009 B\A-000004 D

tart Cal Date:	6/10/2009 15 33	End Cai Date:	6/11/2009 13:47	
Dilution Factor	Extract Volume	Sample Volume	Sample Weight	
1X	20 mL	1000 mL	0 e	

Signal 1 UV 250-265 Signal 2 UV 358-205

			Signal I O + 230-2					Signal 2 O v 336-2	203				<del></del>
Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4.Dinitrotoluene	18.23	0.041	5555	2,3550<		18.23	0.044	10715	2.4790		0.0000	0.00	
HMX											0 0270	0.10	
RDX								14			0 0650	010	
Pierie ACID					1.4	<i>A</i> s	Lan	will			0 1250	1 00	
1,3,5.Trinitrobenzene	10,37	0.184	1541	0,2088<	~ MI	compro	<i>~</i>	w 10			0.0310	0.10	45
1,3-Dmitrobenzene					AND THE PROPERTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY O		auce				0 0500	0.10	
TETRYL			4-20 Lu				7	111109			0 0500	0.10	
Nitrobenzene							7	11.0			0 0500	0.10	
2,4,6-Trinitrotoluene											0 0240	0.10	
4-AM-2,6-DNT											0 0220	0.10	
2-AM-4,6-DNT											0 1000	0 20	
2,6-Dinitrotoluene											0 0500	0 10	
2,4-Dinitrotoluene											0.0500	0.10	
2-Nitrotoluene											0 0720	0.50	
4-Nitrotoluene											0 0720	0.50	
3-Nitrotoluene											0 0620	0.50	
Nitroglycerin											0 3300	0 65	
PETN											0 3000	0.65	
3,5-Dintroaniline										1	0 0250	1 00	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5000	2,3550	94	2,5000	2.4790	99	(79-111)

Notes

M = Manually Integrated

Signals Differ by More Than 40%

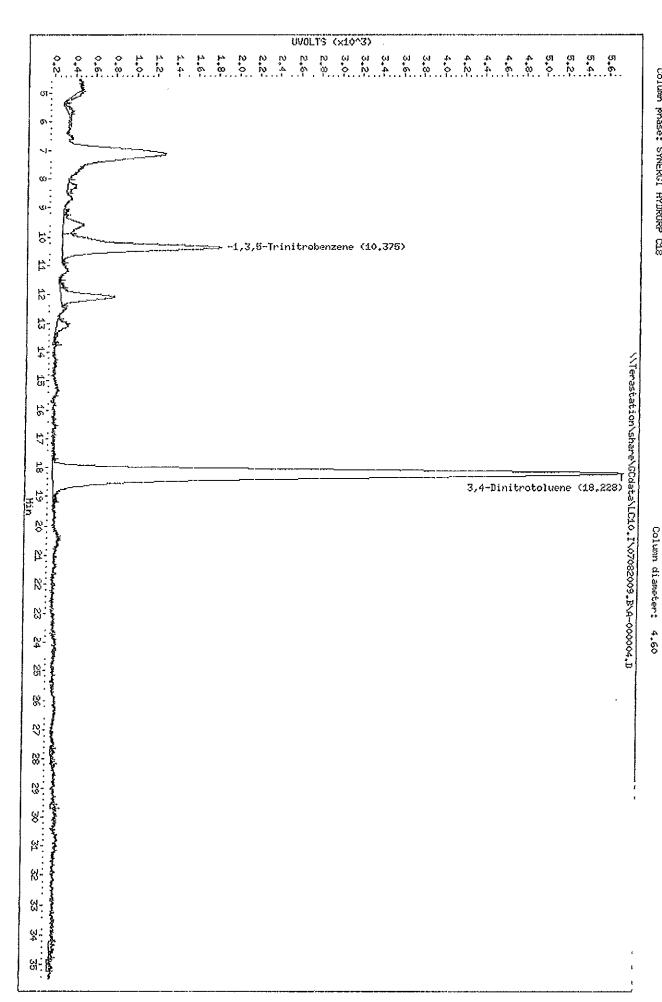
D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Instrument: LC10.1

Operator: fhk







Chromatography Summary

Injection Date:

7/10/2009 20.34

Operator: fik

Vial Num: 11

Method 8330 Target Analyte Results

DataFile: Instrument ID: 1.C9 I\07102009A B\C-000004 D 1.C9

Sample:

LF1EN1AA 9183251 G9G020000-251 B 1X

SpikeList:

Method File:

LC9 I\07102009A B\8330CNAB M

Matrix: WATER

SubList: WATER sub

Start Cal Date: 6/9/2009 20 53

End Cul Date: 6/10/2009 4:30

Dilution Factor

Extract Volume

Sample Weight

1X

20 mL

1000 mL

Sample Volume

0 g

Samp. Info: Misc. Info: LPIENIAA 9183251 G9G020000-251 B 1X,0; ;;1000,;20;1;WATER sub;,0,1;LFIENIAA

			Signal 1 UV 250-2	265				Signal 2 UV 355	205				
Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30.78	0.093	5055	2.5500<							0.0000	0.00	45
HMX											0.0270	0.10	
RDX			0 110								0 0650	010	
Piene ACID	114	in hol	med ()	ساسد							0 1250	1 00	
RDX Picuc ACID  1,3,5-l'rintrobenzene 1,3-Dinitrobenzene	~ 100 d	E4 62	•	( ) Mu	N						0 0310	010	
1.3-Dinitrobenzene				1 2/10	<b>•</b> •						0.0500	0.10	
TETRYI,				,							0.0500	0.10	
Nitrobenzene											0 0500	010	
2,4,6 Trinitrotoluene											0 0240	0 10	
4-AM-2,6-DNT											0.0220	010	
2-AM-4,6-DNT											0.1000	0 20	
2,6-Dinitrotoluene											0 0500	010	
2,4-Dinutrotoluene											0.0500	010	
2-Nurotoluene											0 0720	0.50	
4-Nitrotoluene											0 0720	0.50	
3-Nitrotoluene											0 0620	0.50	
Nitroglycerin											0 3300	0.65	
PETN											0 3000	0 65	

			كبير بسعدت				
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
				·			
3.4-Dinitrotoluene	2.5000	2.5500	102	2,5000		0	(48-143)

Notes:

3.5-Dinitroandme

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

0.0250

00.3

Client ID:

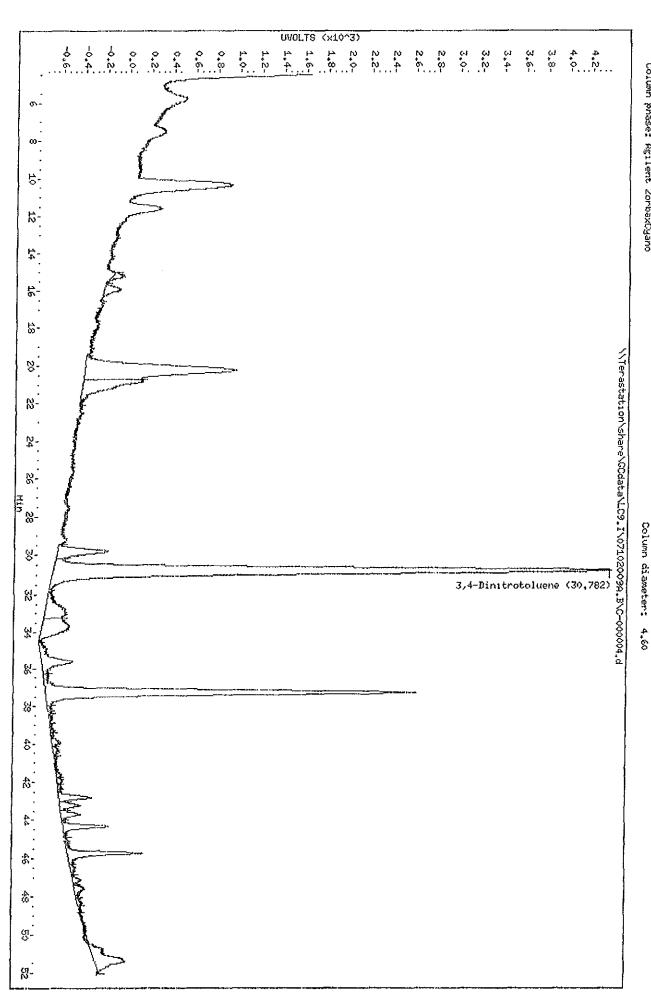
Wolume Injected (uL): 500.0

Column phase: Agilent ZorbaxCyano

Sample Info: LF1EN1AA 9183251 696020000-251 } 1X;0:

Instrument: LC9.i

Operator: fhk



# QC DATA ASSOCIATION SUMMARY

# G9G010225

# Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9183251	
002	WATER	SW846 8330		9183251	
003	WATER	SW846 8330		9183251	
004	WATER	SW846 8330		9183251	
005	WATER	SW846 8330		9183251	

Witnessed By / Date: TP 7/02/09

HY-DG NE (FEXU SOME) MAY

Spiked By / Date:

QC Codes: B = MB, C = LCS, L = LCSD, S = MS, D = SD, FB = Filter Blank

G9G010225

0,70

Ribar 13,40Nt souplan THE WAY SEED OF THE

09665 VOOZ'T object of the

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97 <b>1</b> 0 83		TestAmerica West Sacramento (916) 373 ₇ 5600	ppm/ppt
	7/8/09	Standard Information	STD Mame/Conc
		indard In	Date Rails of
	L1 -0209 MMENTS:		STD ID
	7-14-09 No TP SOP No.: W.C. EXTRACTION CO		Volume Sourt
	- 1 1 000 1 1 1	O O O Seption	
cramento ter Sheet	Project Due: $\frac{7-14-69}{MD}$ Extn Comp'd By: $\frac{7P}{MD}$ Mass EXTRACTION		
TestAmerica West Sacramento ESC-Extraction Master Sheet	otuma Final Mass		
TestAmer ESC-Extr	Picric But Sample Siza Mass Mass Ass Ass Ass Ass Ass Ass Ass Ass Ass		
	Holding Time Due: 7-2.  BATCH #. 9183251  Test #. 8330-L  Lab ID  GGC010225-0  GGC010225-0	7/8/09 TE	
	> 3 d d		

		1 1 1 1 C 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	3						
		restantica Laboratories, Inc. EXTRACTION BENCH WORKSHEET	ION BE	ratori ENCH W	es, I	nc. EET		Run Date: 7/08, Time: 10:59	.23
Blank Y Weights/Volumes Check Y Spike & Surrogate Worksheet MS/MSD Y Vial contains correct volume Labels, greenbars, worksheets computer archive all	e Worksher rrect vol: s. worksh rorrect	et ume eets all match ethod					Expanded COC Compl Y Bench She Yackage S Bench She	Deliverable eted et Copied ubmitted to Anal	lGroui
Extractionist: 000915 Horacio J. Arauz Concentrationist: 002448 Tuan Q. Phan			* * * *	%***** QC BAT	BATCH:	**************************************	PREP DATE: COMP DATE:	E: 7/02/09 9:30 E: 7/08/09 10:00	
ARAUZH / 7/02/09		Nit	roaro ID PE	matics ASE EX	, & Ni.	Nitroaromatics & Nitramines: Explosives SOLID PEASE EXTRACTION (NOMINAL)	Explosives (8330) U.)	30)	
ANL LOT#,MSRUN#/ TEST DUE WORK ORDER FLGS EXT MIH	H MATRIX	INIT/FIN WT/VOL	INIT	PH"S ADUL A	ADJ2 B	SOI	엙	SPIKE STANDARD/ VOL SURROGATE ID	00
G9G010225-001 7/14/09 LFXXF-1-AC R B7 A0	WATER (	1021.57mL 20.00mL	NA	A.	MA H	HOAC/ACN	4.5 HOAC/ACN	5.0 SOUL-09GCSV0172	93 - 676
G9G010225-002 7/14/09 LFXX6-1-AC R B7 A0	) WATER	1022.4mL 20.00mL	NA	MA.	na h	HOAC/ACN	4.5 HOAC/ACN	5.0 50UL-09GCSV0172	ento (916)
G9G010225-003 7/14/09 LFX11-1-AC R B7 A0	) WATER	1 <b>024.15ml</b> 20.00ml	NA	MA	en en	HOAC/ACN	4.5 HOAC/ACN	5.0 50UL-09GCSV0172	mstos& Ja
G9G010225-004 7/14/09 LFX12-1-AC R B7 A0	WATER	1019.2mL 20.00mL	Ą	Ā	H H	HOAC/ACN	4.5 HOAC/ACN	5.0 50UL-09GCSV0172	erica We
G9G010225-005 7/14/09 LFX15-1-AC R B7 A0	WATER	1021.92mL 20.00mL	ĄN	MA	H WN	HOAC/ACN	4.5 HOAC/ACN	5.0 SOUL-09GCSV0172	nAteeT
G9G020000-251 0/00/00 LF1EN-1-AAB B7 A0	) WATER	1500mL 20.00mL	<u>AN</u>	A.	an A	HONC/ACN	4.5 HOAC/ACN	5.0 500L-09GCSV0172	
G9G020600-251 0/00/00 LF1EN-1-ACC B7 A0	WATER	1000mL 20.00mL	AN.	MA	H AN	HOAC/ACN	4.5 HOAC/ACN	5.0 20UL-09GCSV0037,SEE 50UL-09GCSV0172	E 8.5

18 HOAC/ACN 2991-95F; .18 HOAC/H2O 2991-87B

C = CLP D = EXP.DEL) R = RUSH E = EPA 600

NUMBER OF WORK ORDERS IN BATCH:

4

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Page# <u>36</u>

Inst ID: LC10

Batch ID: 06102009

Method: Method 8330

t : SOP SAC-LC-0009

ICAL Date: See Calibration Report

	<del></del>			·				•					*
Date	T:.me	Operator	Sample	ID	File	ID	Vol	or	E	xtract	1	Diln	Comments
{		1	1	J		1	Wt		į	Vol	ļ		Í
===06===00*600	*****		二十十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二	**********	****	4554	<b>-</b> 142 ≈ 5	ಶದಭವಚ	* r 2	=#=#=*	3 A D	======	***************
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10-JUN-2009	15:33	thk	STD_1 098CSV0048	5.0/0/0/ong/m	A-0000	02.	0	g	İ	Jm O	1	1	I
10-JUN-2009	16:23	Ehk	STD_2 DECSVOO49	10/20/10/10ng	A-0000	03.	0	ġ	1	Jm O	1	1	I
10-JUN-2009	17:14	l thk	STD_3 09GCSV0050	20/50/20/20ng	A-0000	04.	0	ġ	1	0 mL	1	1.	1 Back Stol
10-JUN-2009	18:05	fhk	STD_4 /9GCSV0051	50/100/50/50n	A-0000	05.[	0	9	1	र्यात छ	1	1	1
10-JUN-2009	18:56	ink	STD_5 09GCSV0053	100/200/100/1	A-0000	06.	٥	g	1	JG 0	-	1	l
10-300-2009	19:46	£hk	STD_6 09GCSV0054	200/500/200/2	A-0000	07.	0	ġ	l	0 WL	1	1	
10-JUN-2009	20:37	thk	STD_7 0980800055	500/1000/500/	A-0000	08.	0	à	)	0 mL	1	1	1
10-JUN-2009	21:28	fink	STD 8 09GCSV0056	1000/2000/100	A-0000	09.	0	g	ı	O mL	I	1	
10-JUN-2009	22:18	fhk	Blank	1	0000-A	10.	0	9	ĺ	சோ 0	ĺ	1	l
10-JUN-2009	23:09	ffhk	LCV 6 08GCSV0397	100/200/100/1	A-0000	11,	0	g	Ì	O mL	1	1	1
11-JUN-2009	00:00	lfhk	STD_5 09GCSV0053	100/200/100/1	A-000C	12.	0	9 1		Jm O	1	ı	
11-JUN-2009	00:50	11hk	Surrogate 100mg/a	т. 1.	A-0000	13.	0 :	3		0 mL	į	1	l
1.1-JUN-2009	12:56	Ithk	Primer	į.	A-0000	14.	٥.	9		Jia 0	1	1	
11-JUN-2009	13:47	link	STD 3 09GCSV00S0	20/50/20/20ng	A-0000:	15.	0 :	3		0 ឃើរ	1	ı	vestisector New Sto

Jan 6(11/109

Report Date : 11-Jun-2009 15:09 Page 1

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

```
Start Cal Date
                  : 10-JUN-2009 15:33
                  : 11-JUN-2009 13:47
End Cal Date
Quant Method
                  : ESTD
                  : Disabled
Origin
Target Version : 4.14
Integrator
                  : Falcon
                  : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Method file
                  : 11-Jun-2009 15:06 kenneyf
Last Edit
Curve Type
                  : Average
Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000002.d
Level 2: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d
Level 3: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d
Level 4: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d
Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d
Level 6: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d
Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d
          \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d
                        [ 5.000 | 10.000 | 20.000 | 50.000 | 100.000 | 200.000 |
                                                                          % RSD |
  Compound
                        | 500.000 | 1000.000 |
                        Level 7 | Level 8 |
                                   120 / 115
                            119
                                   123
                        81.80000 75.90000 77.15000 80.72000 8 45000 80.13000
                        | +++++ | +++++ | 91.72000 | 85.68000 | 84.85500 | 84.88200 |
                        74.63400 74.87800
                                          1451
                                   146
                                                1501
                            136
                                   147
                                                                           4.6101
                            145
                                   142
                                   141
                       97.20000 90.80000 89.35000 91.80000 88.83000 90.35000
   8 3.5-Dinitroaniline
                       1 82.208001 89 250001
```

92.43000 94.40900

97.60000 95.10000 77 40000 96.02000 94.31000 95.06000

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33 End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD Origin : Disabled

Target Version : 4.14
Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

			20.000	:		1		(
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	{ % RSD
				}				1
	•	1000.000	•			<u>{</u>		  -
		Level 8	•	l .	!	ļ		!
esseracasessus survivada and and and and and and and and and	•	•	•	•	1 61.06000	•	•	* * * * * * * * * * * * * * * * * * *
10 Mittopensene	•	62.30000   61.95700	•	1 046000	1 97.00000	1 02.20000 1	   60.67412	1   4.6!
	1 30,02000		 	 	: 1	 		1.0.
11 Nitroglycerin	++++	+++++	1 +++++	*****	,   +++++	++++		; }
	++++	+++++	[	-	]	I	++++	+++++
								)
12 2,4,6-Trinitrotoluene	94.80000	90.20000	81.90000	88.78000	87.04000	87.55500		1
	84.22200	87,17800	i	1		•	87.70937	4 40
		<b></b>	1			] ~~~~~		
13 4-AM-2,6-DNT				63.26000	61.61000			
	58.65400	61,14600	<u> </u> -				62.31125	
14 2-AM-4,6-DNT		75.80000		[ 75.54000	73 53000	74.390001	73.55987 <b>i</b>	2,93
	02'T0400	72.13300  		! !	 	: '	13.55561	2,33
15 2,6-Dinitrotoluene	1 1 57.60000	'	'	i   53.68000	53.03000	53.21500	4	
	•	52,74900			j	•	53.23800	3.83
		\				}	}	~
16 2,4-Dinitroboluene	93.00000	86.50000	82.60000	86.20000	84.72000	85.49000]	1	
	81.43200	85.05700	[		ļ	Ì	85.62488	4.03
	• • • • • • • • •							
17 Z-Nitrotoluene		,		35.64000	35.21000	,		
		35.45000	<b> </b>	<b>!</b>		}	35,93113)	6.48
18 4-Nitrotoluene	,		   40 75000	42 55000	43.22000	42 ECEANI	 	
19 4-Microcolnene		43.21300		+3.36900  	13.220001	,	43 79800	5.39
				[				
19 3-Nitrotoluene	47.00000)	44.600001	(9.85000 عکر	/43.24000)	/42.93000	43.08000	Í	
		_42.82400]		1	1	Í	43.13000	4.85
		- 				i	,\{	
20 PETN	++++	+++++	++++	++++>	++++	+++++ }	1	
1	+++++	+++++	ł	t	- 1	- 1	+++++	++++

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33

End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled : Disabled Origin Target Version : 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf

Curve Type : Average

	5.000	10.000	20.000	50 000	100.000	200.000		I I
Compound	•	•	Level 3		•	•	RRF	% RSD
i I	!	1000.000			 	 	l l	!
i	•	Level 8	1	i	1	<u>'</u>	ĺ	1
7=====================================	.   44=====		1==/=====	BERBERE	m=======	=======	800000000	
\$ 1 3,4-Dinitrotoluene	+++	50.10000	46.40000	46.48000	45.87000	46.85500	<u> </u>	1
1	46.08000	] 48.38600	<u> </u>	ì		ĺ ,	47.16729	3.251
	.	1	]					
		l		l			ſi	

Page 1

Start Cal Date : 10-JUN-2009 16:23

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

End Cal Date : 11-JUN-2009 13:47 : ESTD Quant Method : Disabled Origin Target Version : 4.14 Integrator : Falcon : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\8I : 11-Jun-2009 15:14 kenneyf Method file Curve Type : Average Calibration File Names: Level 2: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A-Level 3: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d\A-Level 4: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A-Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d\A-Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A-Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A-

Level 8: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A.

	10.000	20.000	50.000	100.000	200.000	500,000	]	j
Compound	Level 2	•	Level 4	-	•	Level 7		% RSD
	1000.000	 	1	 	 		l Î	! !
	Level 8	•	1	ļ 1	<b>{</b>	<u> </u>	<u> </u>	  =======
2 HMX	+++++	+++++	+++++	*++++	+++++	+++++	! !	]
	± > + + +	1	1	<u> </u>	[ 	 	+++++ 	+++++ 
3 RDX	+++++	· ++++	+++++	++++	+++++	++++	<del></del>	{··
	+++++		1	1	[ 1	 	+++++ 	+++++ 
4 EGDN	+++++	+++++	+++++	. +++++	****	+++++	t	1
	++***	<b> </b>	} 	} 	} 	 	} +++++ [	+++++ 
5 Picric ACID	+++~+	134	126	125	125	110	•	1
	110	 	} }	 	 	 	122 _. 	8,08
6 1,3,5-Trinitrobenzene	1 ++++	+++++	<b>++++</b>	+++++	+++++	+++++		İ
	+++++	 	 	 	  - <b></b>	[ []	{ +++++   	+++++ 
7 1,3-Dinitrobenzene	+++++	+++++	++++	*+*+	++++	+++++		I
	++++-	   <b></b> -	 			[ 	+++++	+++++ 
8 3,5-Dinitroaniline	++++	+++++	+++++	++-++	+++++	+++++	İ	Ì
	+++++	 	 	] 		 	+++++ 	+++++ 
9 TETRYL	+++++	+++++	+++++	+4+++	+++++	+++++		
	1 +++++ {			 			+++++	+++++
	1	<b></b>   	<del></del> -   	<del></del>   	= . = = =		; ]	! 

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23

End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled Target Version : 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

	10 000	20.000	50.000	100 000	200.000	500.000	·····	
Compound	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	* RSD
				]		)	1	!
	1000.000   Level 8	1	1	1	 1	<b>₹</b> 1		ļ 1
	•	  -==========	 	******	  -==#####	[  aesuwunne	( 	42220000
10 Nitrobenzene	++++		,	++++	++++		[	· f
	++++	1	1	1	l	i	+++++	+++++
11 Nitroglycerin	1 +++++		=====================================	FO 50000	 ! 61 06500	59.75400	 	
II witiodiyesiin	61.73900	•	)	00 55050	, 61.66500 [	•	;   60 83467	1.52
			1					
12 2,4,6-Trinitrotoluene	++++>	+++++	+++++	+++++	+++++	+++++		
	+++++	 !	 	 	 	 	+++++ 	++++
13 4-AM-2,6-DNT	++++	++++	++++	+++++	++++	1 +++++	[	
•	++++	i İ	i '	ĺ		ĺ	+++++	++++
14 2-AM-4,6-DNT	+++++	} +++++ [	+++++ 	++++	++++	+++++ 	   +++++	+++++
		 	1 	: 	 	! }		
15 2,6 Dinitrotaluene	++++-	+++++	+++++	+++++	+++++	+++++	1	
	++++		<b>i</b> 1				*****   1	++++
16 2,4-Dinitrotoluene	++++-	+++++	++++	+++++	++++	+++++	!	
	++++		I				****	++++
17 2-Nitrotoluene	1 ++++ 1	++++	*+++	+++++   	****	++++	+++++	++++
		: 	[	 				
18 4-Nitrotoluene	++++	++++	+++++	++++	+++++	+++++ (	ĺ	
	++++		!	1	1	I	+++++	+++++
19 3-Nitrotoluene	   ++++	+++++	+++++	+++++	+++++	+++++		
TO O-MICTOCOLUGUE	++++		*****	1	17777	11111	+++++ }	+++++
					i		i	
20 PETN	++++~		30.36000	31.91000	32.25000	32.38000		
	32.75200				.	i	32.05033	2.74
865555555555555555555555555555555555555	квинаскаска		,					
	1			}		1		

Page 3 Report Date: 12-Jun-2009 16:04

## TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD

: Disabled Origin Target Version : 4.14

Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\85
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

	H	Level20	ropped of	lux to p	air 1ht	400	- 14 6/12/09	
		<del></del> 					 	
3 3,4-Dinitrotoluene	93 14200	•	88 /6000	88.28000	30.21000	88.03667	89.85478	2.142
	'1	•	====================================	•				= = = = 1
	Level 8	•	l .	1	] .	!		l
	1000.000	, [	i		, 			İ
Compound	· ·	-	Level 4					% RSD i
	•	•	50.000	•	•			

A-000011.D

Chromatography Summary

Injection Date:

6/10/2009 23.09

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID:

Method File:

LC10 N06102009 BVA-009011 D

Vial Num: 20

Sample :

ICV_6 08GCSV0397 100/200/100/100ng/mL

Spike:List:

1,010

LC10 1\05102009.B\8330AB M

Matrix: NONE SubList: CALsub
Samp, Info: ICV_6 08GCSV0397 100/200/100/100ng/mL;2

Mise, Infa:

C1_0000C01033110M240410M

(6; ; (3;CALsub; ,0;1

Start Cal Date:	6/10/2009 15:33	End Cal Date:	6/11/2009 13:47
Dilution Factor	Extract Volume	Sample Voluma	Sample Weight
JX	0 mL	0 mŁ	0 g

			Signal I U	JV 250-2	65					Signal 2 U	V 358-205				
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene				200	-100%	(Pails	Wil	- in	W1.3-	- FAV	200	-100%	Fails	(±15)	
нмх	5.29	26153	216.4000<	200	8%	Acceptable	•	` '			200	-100%	Fails	(±15)	45
ROX	7.84	16084	205.5000<	200	3%	Acceptable					,200	-100%	Fails	(±15)	45
Picrio ACID	9 00	41754	504,4000	× 500	1%	Acceptable		9 00	61509	505.5000<	500	1%	Acceptable	(±15)	
1,3,5-Trinitrobenzene	10.20	29097	197.1000<	200	-1%	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dinitrobenzene	13.25	27834	199.2000<	200	0%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	14.30	17776	191.6000<	200	-4%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	15.16	12143	200.1000<	200	970	Acceptable					200	-100%	Fails	(±15)	45
2,4,6-Trinitrotoluene	16.53	17352	197.8000<	200	-1%	Acceptable					200	.100%	Fails	(±15)	45
4-AM-2,6-DNT	17.51	11969	192.1000<	/ 200	4%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18.57	13851	188.3000<	200	-6%	Acceptable					200	100%	Fails	(±15)	45
2,6-Dinitrotolueno	20.28	10445	196,2000<	200	-2%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dimitotolikne	21.00	16653	194.5000<	200	-3%	Acceptable					200	-100%	Fails	(±15)	45
2-Nitrotoluene	24.68	7039	196.7000<	200	-2%	Acceptable					200	-100%	<b>Fails</b>	(±15)	45
4-Narotolaene	26.50	8526	194.7000<	, 200	-3%	Acceptable					200	-100%	Fails	(±15)	45
3-Nitrotohiene	28,49	8451	195,9000<	/	-2%	Acceptable					200	-100%	Fails	(±15)	45
Nitroglycerin				200	-100%	Fails		15.78	12548	206.3000<	200	3%	Acceptable	(±15)	45
PETN					.100%	Fails		30.10	5830	181 9000<	<b>1</b> 200	-953	Acceptable	(±15)	45
3,5-Dinutroaniline	13.99	18460	205 2000<	200	3%	Acceptable						-100%	Fails	(±15)	45
EGDN		-			100%	Fails		<del></del>			200	-100%	<b>Fails</b>	(±15)	

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 6/11/2009 3:26 PM

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

4

Page# 4

Inst ID: LC10 Batch ID: 07082009

Method: Method 8330 Test: SOP SAC-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	{ Sample	e ID	[ File (D	Vol or	[ Extract	Diln	Comments
	I	I	1		1	Wt	Vol	1	1
=+======	=: *****	==========	*********		********		==*0003355	¢#====	
08-JUL-2009	16:09	fjik	Primer		{A-000001.	l 0 g	Jm O mL	1	1
08-JUL-2009	16.59	/fhk	Primer		A-000002.	0 g	0 mL	1	1
08-JUL-2009	17:50	fhk	STD_6 098C\$V0054	.4K/ 2/.2/.2/	' A-000003.	0 9	J O MT	1	{
08-JUL-2009	18:41	fhk	LF1EN1AA 9183251	G9G020000-251	. A-000004.	1000 mL	20 mL	( 1	l
08-JUL-2009	19:31	fhk	LF1EN1AC 9183251	G9G020000-251	. A-000005.	1000 mL	30 mL	1	
08-JUL-2009	20:22	fhk	~ LFXXW1AC 9183251	. G9G010225-1 1	A-000006.	1021.57 mL	20 mL	1	1
08-JUL-2009	21:12	fhk	* LFXX61AC 918325)	. G9G010225-2 1	A-000007.	1022.4 mL	20 mL	1	l
08 <b>- JU</b> L-2009	22.03	ļīhk	LFX111AC 9183253	. G9G010225-3 1	800000-A}	1024.15 mL	20 mL	1	
08-JUL-2009	22.53	fhk	LFX121AC 918325	. G9G010225-4 1	(A-000009	1019.2 mL	20 ml	1	l
08-JUL-2009	23:44	√£hk	* LFX151AC 918325)	. <b>G9G010225-5</b> 1	.010000-A	1021.92 mL	20 mL	1	1
09-JUL-2009	00:35	£hk	[STD_S 09GC8V0053	.2K/.1/.1/.1/	A-000011.	0 g	0 mL	1 1	l
09-JUL-2009	01:25	Enk	LF3161AA 9187206	G9G060000-206	[A-000012.	1000 mL	20 mL	1	l
09-JUL-2009	02:16	1.hk	LF3161AC 9187206	G9G060000-206	A-000013.	1000 mL	20 mL	1	
09-JUL-2009	03:06	fhk	LF3H41AC 9187206	G9G030156-1 1	A-000014	1007.3 mt	20 mL	} 1	l
09-JUL-2009	03:57	fhk	[LF3H51AC 9187206	G9G030156-2 1	A-000015.	996.15 mL	20 mL	1	l
09-JUL-2009	04:47	fhk	LF3H61AC 9187206	G9G030156-3 1	A-000016.	[1005.3 mL	20 m£	1	1
99-JUL-2009	05.38	lfhk	STD 6 09CC\$V0059	.48/.2/.2/.2/	A-030017.	\ 0 g	O mL	1	1

A-000003.D

 $0\,\mathrm{mL}$ 

Chromatography Summary

Injection Date:

7/8/2009 17 50 4

Operator: fik

DataFile: Instrument 1D: LC10.1\07082009 B\A-000003 D

Vial Num: 2

Method 8330 Target Analyte Results

STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Method File:

LC10 N07082009 B\8330AB M

Start Cal Date:

6/10/2009 15:33

6/11/2009 13 47 End Cal Date:

Dilution Factor

LC10

Sample Volume

SubList: CAL sub Matrix: NONE Samp. Info:

Misc. Info:

Sample:

STD_6 09GCSV0054 4K/2/2/.2/2;2 ,6.,,3,CALsub,,0,1

SpikeList:

Extract Volume

Sample Weight

ŧΧ

 $0 \, mL$ 

0 g

			Signal I U	JV 250-2	65					Signal 2 UV	358-205				
Compound Name	RT'	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	РРВ	Spike Level	%D	Result	Flug Limits(%	) Flag
3,4-Dmitrotoluene	18.19	9699	205.6000<	200	356	Acceptable	•	18 18	18512	214 1000	200	1%	Acceptable	(±15)	
HMX	5 28	25610	212 0000<	200	6%	Acceptable					200	-100%	Fails	(±15)	· 45
RDX	7 84	16375	210 2000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
Picric ACID	8 99	41964	507 0000	500	156	Acceptable		8 99	61727	507 3000<	500	1%	Acceptable	(±15)	
1,3,5-Trintrobenzene	10 19	30519	206 7000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dintrobenzene	13 25	29220	209 2000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	14 32	19026	205 0000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	15.17	12927	213 0000<	200	7%	Acceptable					200	-100%	Fails	(±15)	45
2,4,6-Transcotoluene	16.54	18133	206.7000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17.53	12950	207.8000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18 59	15167	206 2000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dinitrotoluene	20,32	10979	206.2000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	21 04	17596	205 5000<	200	39,	Acceptable					200	-100%	Fails	(±15)	45
2-Nitrotoluene	24 75	7372	205 2000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
4-Nitrotoluene	26 57	8973	204 9000<	200	295	Acceptable					200	-100%	Fails	(±15)	45
3-Nitrotoluene	28 57	8900	206.4000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
Nitroglycerin					-100%	Fails		15 79	12780	210 1000<	500	5%	Acceptable	(±15)	45
PETN					-100%	Fails		30 20	6780	211.5000<	200	6%	Acceptable	(±15)	45
	13.99	18618	206 9000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
EGDN					-100%	Fails						-100%	Fails	(±15)	

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result O = Over Calibration Range

Signals Differ by More Than 50%

Printed: 7/8/2009 7:05 PM

A-000011.D

End Cal Date:

Chromatography Summary

NONE

Injection Date: DataFile:

7/9/2009 0:35

Operator: fik

Vial Num: 3

Method 8330 Target Analyte Results

Instrument ID:

LC101\07082009.B\A-000013 D J.C10

Sample:

Matrix:

STD_5 09GCSV0053 .2K/.1/.1/.1

SubList: CAL sub

SpikeList:

Method File:

LC10 I\07082009 B\8339AB M

6/10/2009 15:33 Start Cal Date: Dilution Factor

6/11/2009 13 47

ŧΧ

Intract Volume

0 ml.

Sample Volume

g ml,

Sample Weight 0 g

STD_5 09GCSV0053 2K/ 1/.1/.1/ 1;2 Samp. Info:

Mise. Info:

:5; , , .3,CAL.sub: .0,1

Stenal 2 UV 358-205

			Signal 1 U	JV 250-2	265					Signal 2 UV	358-205				
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinarotolucne	18.20	4739	100 5000<	100	) 1%	Acceptable		18,21	9063	104 8000	100	5%	Acceptable	(±15)	
HMX	5 29	12630	104 5000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
RDX	7 85	8029	103.1000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
Picae ACID	9 05	16777	202.7000	200	1%	Acceptable		9 06	24679	202 8000<	200	1%	Acceptable	(±15)	
1,3,5-Trinstrobenzene	10 20	15097	102.3000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
1,3-Dmitrobenzene	13.26	14436	103 3000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
TETRYL	14.34	9407	101 4000<	100	, %	Acceptable					100	-100%	Fails	(±15)	45
Nitrobenzene	15 18	6290	103 7000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2,4.6-Trinitrotoluene	16 56	8976	102 3000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17.55	6365	102 1000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2-AM-4,6-DNT	13 62	7472	101 6000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,6-Dimtrotolvene	20 35	5434	102.1000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,4-Dinttrotoluene	21 06	8697	>0006.101	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2-Nitrotoluene	24.79	3631	101 0000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
4-Nitrotoluene	36 60	4405	100 6000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
3-Nitrotoluene	28.62	4379	101.5000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
Nitroglycerin				100	-100%	Fails		1581	6320	103 9000<	100	4%	Acceptable	(±15)	45
PETN				100	-100%	Fails		30 24	1380	105 4000<	100	5%	Acceptable	(±15)	45
3.5-Dinitroaniline	14 01	9130	101.5000<	100		Acceptable					100	-100%	Fails	(±15)	45
EGDN				100	-100%	Fails					100	-100%	Fails	(±15)	

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/9/2009 9:27 AM

## TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Batch ID: 06092009 Inst ID: LC9

Test : SOP WS-LC-0009 Method: Method 8330

ICAL Date: See Calibration Report

Date	Time	Cperator	Sample	ID	File ID	Vol	or	Ext	ract	Diln	Comments
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**=====================================		======================================	- RECHBERT RANGEMENTS	******		m====	582626	=4=6=	200000	ses===	- 女子自由自己的自己的现在分词 化二
09-JUN-2009	17:40	<b>fhk</b>	{Primer		[C-000001.	1 0	g	1 0	mL	1 1	1
09-JUN-2009	18.46	<b>fh</b> k	Primer		C-000003	0	g	į o	ጠ止	1	l
09-JUN-2009	19:49	fhk	BLANK		C-000003.	1 0	g	1 0	шĻ	1	l
09-JUN-2009	20:53	fhk	STD_1 09GCSV0048	5/0/0/0/0	[C-000004.	0	g	1 0	mL	1	l
09-JUN-2009	22 56	fhk	STD_2 09GCSV0049	10/20/10/10/1	10-000005.	1 0	g	] 0	mL	1	\ <u></u>
09-JUN-2009	22:59	fhk	STD_3 09GCSV0050	20/50/20/20/2	10-000006	0	g	į o	mL	1	\
10-JUN-2009	00:03	fhk	STD_4 09GCSV0051	50/100/50/50/	C-000007.	į o	g	0	mЪ	1	l
10-JUN-2009	01:07	<b>f</b> £hk	{STD_5 09GCSV0053	100/200/100/1	JC-000003.	} 0	g	1 0	πL	} 1	1
10-JUN-2009	02:11	fhk	]STD_6 09GCSV0054	200/500/200/2	C-000009.	{ 0	g	) 0	mL	ļ 1	\
10-JUN-2009	03:16	fhk	STD_7 09GCSV0055	500/1000/500/	{C-000010.	1 0	g	1 0	መĽ	1	1
10-JUN-2009	04:20	fhk	STD_8 09GCSV0056	1000/2000/1K/	(C-000011.	) 0	g	1 0	πL	1 1	l
10-JUN-2009	05:25	fhk	BLANK		C-090012.	0	g	) 0	mL	1	1,
10-JUN-2009	06:29	fhk	TCV_6 08GCSV0397	200/500/200/2	C-000013.	1 0	g	1 0	шL	1	1
10-JUN-2009	07.33	fhk	STD_5 09GCSV0053	100/200/100/1	(C-000014.	ţ 0	g	1 0	mL	1	1,

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53 End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled

Target Version : 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000004.d
Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d
Level 3: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d
Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d
Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d
Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d
Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d
Level 8: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d

									-,
Compound	•	10.000 Level 2	20.000 Level 3	50.000 Level 4	100.000   Level 5	200.000   Level 6		   % RSD	1
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	500.000				! /	L	l	i	
	Level 7	•	l !	j !		 	{ {	  -========	. i
2 HMX			•	•	39 51000	•	•	}	1
		39.22000		_	اً ا		41.20913	9.288	3 (
3 RDX	45.40000	43.70000]	42 75000	43.30000	42.16000	42.58500	 	 	1
	38.11800	42.45200			1		42 55812	4.852	1
4 EGDN	+++++	+++++	+++++	*****	} +++++	4++++	!	}	\ {
	+++-1	+++++		<u> </u>	[ :		+++++ 	++++	}<-
5 Pacric ACID	+++++	+++++	+++++	+++++	+++++	++++	}		1
	1 +++++	+++++		 			+++++	+++++	<-
6 1,3,5-Trinitrobensene	66 80000	67.20000	67 60000	68.82000	67.02000]	67.61500			
	63.46600	67.27500		į			66.97450	2.306	1
7 1,3-Dinitrobenzene	95.200001	88.70000	87.25000	89.40000	87 58000	88.56500	[		1
,.		88.38800					88.05662	4.893	İ
8 3,5-Dinitroaniline	} -۰۰-    71.20000	68.500001	68 65000	68.54000		66.97500			] ]
,	•	65.89900]			İ		67.10700	4.478	1
9 TETRYL	93 200001	} ∕86 50000¹	. 85.70000	86,92000	86.05000]	86,26500	 		[ }
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				- ·	 		 		1
		<del></del> _		···		······			

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53

End Cal Date : 10-JUN-2009 04:20 Quant Method : ESTD Origin : Disabled Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

_	•	1 10.000	•	•	•	-	: —	
Compound		Level 2		Level 4	•	•	RRF	% RSD 
	500.000	1000.000	1	1	i	İ	ĺ	, 
	•	Level 8	•		]		}	!
eserencesereseseseseseneneses 10 Nitrobenzene	,	1 42.00000	•	•	•	:	1	======= 
		40.30500	•	İ	l	į	39,60025	5.00
ll Nitroglycerin	<i></i>   +++++				+++++		[	 
	+1+++	+++++	1		İ	į	+++++	+++++
12 2,4,6-Trinitrotoluene	104	91.00000	81,00000	   77 16000	74.32000	73.90500	 	<del></del> 
. ,	71.97000	73.60800	ļ	İ	ļ		80.89538	13 89
13 4-AM-2,6-DNT	68.80000	69.80000	68.05000	57,74000	65,37000	65.85500	]	} }
	64.80800	65.14700	•	}		}	66.94625	2.81
14 2-AM-4,6-DNY	80.20000	. 76.80000 مرا	•	,	72 25000	,	[ [-	• • • • • • • • • • • • • • • • • • •
	69.79400	72.19800				<u></u>	74.28838	4,34
15 2,6-Dinitrotoluene	54.80000	52.40000	49.70000	49 88000	49.11000	49.44000	<u>'</u>	
,		49 41100		 			50.05412	5,28
16 2,4-Dinitrotoluene		82.40000						
	73 10400	78 73900			 	 	79 40538	3.779
17 2-Nitrotoluene	24.50000	25.30000	23.52500	24.39000		•		
	22.18600	24.28200	_ [	[]		· · ·	24.12756	3.813
18 4-Nitrotoluene	++++	+++++	+++++	+++++	+++++	++++		• •
	+3+24 [	+++++	 	ļ		 	+++++	+++++
19 3-Nitrotoluene	35.00000	32 50000	30.55000	31 42000	30 76000	31.17500		
	28.82000	30.96400	]	1	ļ	<b> </b>	31.39862	5.672
20 PETN	+++-+ ]	++++	+++++	+*+++	+++++	+++++	 	
1	+++++	+++++	ļ	1	ł	1	+++++ }	++++

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53

End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14

Integrator : HP Genie

Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M

Last Edit : 10-Jun-2009 10:24 kenneyf

Curve Type : Average

}	5.000	1 10.000	20.000	50 000	100.000	200.000	1	}
Compound	•	•	Level 3	•		•	RRF	% RSD
1	,	1	ļ	}			! •	; !
	•	1000.000	•	1	1			ł .
	Level 7	Level 8	j	1	ł	1	{	! !
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\$ 1 3,4-Dinitrotoluene	++++	1 46.40000	40.85000	39 44000	38.04000	38 34500	L 1	1
f	35.87333	38.62800		ĺ	ĺ	•	39 65376	8.405
\	]	1	[		<b> </b>			
1		l	l	L	l	l	l	

Page 1

Start Cal Date : 09-JUN-2009 21:56

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD : Disabled Origin Target Version : 4.14 Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\{
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average Calibration File Names: Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d\C-0 \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d\C-0 \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d\C-Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d\C-0 Level 5: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d\C-( Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d\C-0 Level 7: Level 8: \Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d\C-0

	10 000	20.000	50.000	100 000	200.000	500.000	l	J
Compound		Level 3	Level 4	Level 5	Level 6	Level 7	RRF	} % RSD
	1000.000	<del></del>		<del></del> 	}	 	}	1
	Level 8	İ		İ	į	ĺ	į	1
======================================	++++	-====================================	{=====================================	=====================================	++++	++++	 	}=====================================
	+>++	İ	1	ĺ	Ì	-	+++++	+++++
3 RDX	+>+++		{ { +++++		++++	+++++	{  {	[ 
	+++++	[	Ì				. +++++ ]	+++++
4 EGDN	+++++	   39.00000	   42 36000	44.25000	44.94000	40.36600	 	 
	42.86500			[	اً ا		42.29700	5.36
5 Picric ACID	+++++	+++++	   +++++	+++++	++++	+++++	)	
	+++++	1					+++++   	] +++++ 1
6 l,3,5-Trinitrobenzene	   +++++	+++++		4+++	+++++	+++++		,
	+++++					<u> </u>	+++++   	+++++ 
7 1,3-Dinitrobenzene	+++++	<u> </u>	+++++	++++	+++++	+++++	;	, 
	+++++	ļ		; 	 	! !!	] +++++	+++++ 
8 3,5-Dinitroaniline	+++++	+++++	++++	+++++	++++	+++++	,	
	+++++		]	 			+++++   	+++++ 
9 TETRYL	+++++	+++++	+++++	++++	++++	+++++		, <del></del> 
	+++++		!	. !	1		+++++     1	+++++
			~   				, <del>  </del> 	, <b></b>

Page 2

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56

End Cal Date : 10-JUN-2009 04:20 Quant Method : ESTD Origin : Disabled Target Version: 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\{
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

	10 000   Level 2	20 000   Level 3		100.000 Level 5	*		RRF	* RSD
•	Pecer 3		   TGAST 4			+	I ME	\$ XUD
	1000.000	į	İ		I	į i	ĺ	
	Level 8	•	1		1	1		
10 Nitrobenzene	+++++	+++++	*======== 	+++++	++++	*****	_========	******
A MICION IMPINE	++++	1				]	++++	++++
ll Nitroglycerin	+++++ 57 30100	55 25000	55.16000	56 31000	57.02000	56.37800j	   56.23650}	1.57
		! 	! 		 	, 		
12 2,4,6-Trinitrotoluene	++++	+++++	+++++	++++	++++	+++++	1	
	1++++		]	: {		]	+++++	+++++
13 4-AM-2,6-DNT	* * * * * *	   +++++	   +++++	+++++	+++++	   +++++		
	+++++	[	, , 	j		,	+++++	+++++
						[		
14 2-NM-4,6-DNT	+++<+ +++++	+++++   	+++++   	+++++ {	++++	[ +++++	+++++	++++
		, 	 					
15 2,6-Dinitrotoluene	+++++	++++	+++++	*++++	+++++	+++++	1	
 	++++	 	! !!			 	+++++ ]	+++++
16 2,4-Dinitrotoluene	+++~+	+++++	   +++++	++++	+++++	++++	i	
<u>!</u>	++++	!		1	ļ	1	+++++	++++
17 2-Nitrotoluene	+++++	*****	+++++	+++++	+++++	+++++		*********
1. 1. 1.1.0.001	+++++			1	1	1	+++++	4+++
		•}						
18 4-Nitrotoluene	+++++	+++++ <b> </b>	+++++	+++++   	+++++	+++++	+++++ }	++++
			·				}	
19 3-Natrotoluene	1++>+	+++++	+++++ ]	+++++ [	+++++	+++++ [	Ī	
<u> </u>	1++++	]	1			j	+++++	*****
20 PSTN	+++++	104	101	102	104	104	 1	~
	105	~		<u>ل</u> ــــــــــــــــــــــــــــــــــــ	1	· †	103 [	1.20
f	•		•			•	-	

Page 3 Report Date : 10-Jun-2009 10:35

## TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56

End Cal Date : 10-JUN-2009 04:20 Quant Method : ESTD Origin : Disabled Target Version : 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\.
Last Edit : 10-Jun-2009 10:25 kenneyf.
Curve Type : Average

						· · · · · · · · · · · · · · · · · · ·		1	-,
4	10 000	20.000	50.000	100 000	200.000	500.000	l —	1	l
Compound	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	% RSD	1
1					ļ			i	1
-	1000.000	ļ			1	1	l	l	1
1	Level 8		)	l			Į.	ł	1
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\$ 1 3,4-Dinitrotoluene	+++++	++++	+++++	+++++	+++++	++++	1	i	ĺ
1	+ 4 4 4 4 7	F	l	l	}	ļ	++++	+++++	<-
	[	[ <b></b>	ļ				<b>-</b>	]	-
1	ll	l	l <u></u>		1,		l	l <u>.</u>	_}

TestAmerica West Sacramento C-000013.D

Chromatography Summary

Injection Date:

6'10/2009 6:29

Operator: fink

DataFile: Instrument ID: LC9 I\06092009.B\C-000013.D

Vial Num: 20

Method 8330 Target Analyte Results

Sample:

ICV_6 08GCSV0397 200/500/200/200/200

Matrix: NONE

SubList: CAL sub

SpikeList:

Samp. Info: ICV_6 08GCSV0397 200/500/200/200/200:2

Mise. Info: ; 6, , , ; 3; CAL.sub, ; 0, 1

Method File: LC9 IV06092009 B\8330CNAB M

LC9

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4.20

Dilution Factor Extract Volume Sample Volume Sample Weight

1X 0 mL 0 mL 0 g

Signal 2 UV 358-205

Flag RT Response PPB Spike %D Result Flag Limits(%) Flag

			Signal 1 C	JV 250-20	55					Signal 2 UV	358-205				
Compound Name	RT	Response	РРВ	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene	31.18	259	6.5320<	200	297.90	, Fails	NOF	inM	H-	<u> </u>		-100%		(±15)	45
HMX	35,11	8323	202,0000<	<b>/</b> 200	1%	Acceptable					200	-100%	Fails	(±15)	45
RDX	25.60	8556	201 0000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails	(±15)	
1,3,5-Trinitrobenzene	21 78	13318	198 8000<	200	-1%	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dmitrobenzene	19 50	17403	197 6000<	200	-1%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	40 80	16134	185 4000<	200	-7%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	1631	7967	201.2000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
2,4.6-Trinitrotoluene	32 92	14562	180.0000<	200	-10%	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	29 55	12516	187 0000<	200	-11%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	29 21	(4216	191 4000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dinitrotoluene	27 26	9755	194.9000<	200	-3%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	26.42	15486	195 0000<	/200	-3%	Acceptable					200	-100%	Fails	(±15)	45
2-Niuotoluene	22 83	9684	401 4000<	·/ 400	0%	Acceptable					400	-100%	Fails	(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails	(±15)	
3-Nitrotoluene	23 35	6108	194.5000<	200	-3%	Acceptable					200	-100%	Fails	(±15)	45
Nitroglycerin				200	-100%	Fails		38 67	11785	209 6000<	200	5%	Acceptable	(±15)	45
PETN					-100%	Fails		49 13	19084	184 7000< 🗸	200	-8%	Acceptable	(±15)	45
3,5-Dinitroaniline	25 06	13705	204 2000<	200	2%	Acceptable					,200	-100%	Fails	(±15)	45
EGDN					.100%	Fails		10.81	9041	213 8000 🛠	200	7%	Acceptable	(±15)	45

Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC9

Batch ID: 07102009A

Method : Method 8330

Test : SOP WS-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample	מז	File JD	Vol or	ļ	Extract	Diln	Comments
i		ì	1		I	Wt	i	Vol	ĺ	1
		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, :=============	******	, ====================================	******		===========		
10-JUL-2009	17:28	fhk	Primer		C-000C01.	0 g	1	O WL	1	1
10-JUL-2009	18:30	Mhk	Primer		C-000C02.	. 0 g	Ī	O mL	1	1
10-JUL-2009	19:32	fhk	STD_5 09GCSV0238	.2K/ 1/.1/.1/	C-000003.	0 g	1	O mL	1	1
10-JUL-2009	20:34	fhk	LF1EN1AA 9183251	G9G020000-251	C-000004.	, 1000 mL	ı	20 mL	1	<u> </u>
10-301-2009	21:36	fhk	LFXXW1AC 9183251	G9G010225-1 1	C-000005.	1021.57 m	L.	20 mL	1	1
10-JUL-2009	22:39	fhk	LFX111AC 9183251	G9G010225-3 1	C-000006.	[1024.15 m	L.	20 mI,	1	l
10-JUL-2009	23.41	fhk	LFX121AC 9183251	G9G010225-4 1	C-0000 <b>07</b> .	1019.2 mL	1	20 mL	1	l
11-JUL-2009	00.43	fhk	LFX151AC 9183251	G9G010225-5 1	C-000008.	1021.92 m	L	20 mL	1	1 See RIP_
11-JUL-2009	01:45		1 1 12 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2				1	1m 08	1	ļ
11-JUL-2009	02:48	[fhk	LFX4Q1AA 9189394	09G010246-1 1	C-000010.	10.01 g	1	80 mI,	ı	l
11-JUL-2009	03:50	fhk	LFX4R1AA 9189394	G9G010246-2 1	C-000011.	9.06 g	1	80 mL	1	I <u></u>
11-JUL-2009	04:52	/fnk	LFX4T1AA 9189394	G9G010246-3 1	C-000012.	10.01 g	1	4Im 08	1	
11-JUL-2009	05:54	fhk	STD 6 09GCSV0054	.5K/.2/.2/,2/	C-000013	0 g	i	o mL	1	1
11-JUL-2009	06:57	fhk	LF3161AA 9187206	G9G060000-206	C-000014.	1000 mL	i	20 mI,	1	<u> </u>
11-JUL-2009	07:59	) flik	  LF3H41AC 9187206	G9G030156-1 1	C-000015	1.000 mL	i	20 mL	1	
11-JUL-2009 )	09:01	•	  LF3H51AC 9187206			•	i	20 mL	1	
11-JUL-2009	10:03	fhk	LF3H61AC 9187206	G9G030156-3 5	C-000017.	1000 mL	i	20 mL (	5	1
11-JUL-2009	11:06	•	LF5WA1AA 9188431				i	40 mL	1	(
11-JUL-2009	12:08	•	LFXP31AA 9188431	,		•	ì	40 mL	1	
11-JUL-2009	13:10	•	LFXQQ1AA 9188431			•	i	40 mL	1	
11-JUL-2009	14:12	•	LFW791AAB 9182192		C-000021.	•	i	20 mL	1	1
11-JUL-2009	15:14	•	LFV9MIAC 9182192		,		, l	20 mL	1	
11-JUL-2009	16:16	•	STD 5 09GCSV0238	•			-1 -1	0 mL 1	,	}
13-000-2009	10:10	LIIN	1525_5 5536340238	, , / [	C-1/000%3.		,	0 im 1		

Springer for - apxXX

## C-000003.D

Chromatography Summary

Injection Date:

7/10/2009 19:32

Operator: flik

Vial Nam: 2

Method 8330 Target Analyte Results

DataFife: Instrument ID: LC9 I\07102009A B\C-000003 D LC9

Sample:

STD_5 09GCSV0238 .2K/.1/.1/.1

SpikeList:

SubList: CAL sub

Method File:

LC9 N07102009A B\\$330CNAB M

Start Cal Date:	6/9/2009 20 53	End Col Date:	6/10/2009 4.20
Dilution Factor	Extract Volume	Sample Volume	Sample Weight
1X	0 mL	0 mL	0 g

STD_5 09CCSV0238 2K/1/1/1/1/1;2 Samp. Info:

NONE

Misc. Info:

Matrix:

:5.;, 3; CAL sub, , 0, 1. 0

Signal 1 UV 250-265 Signal 2 UV 358-205

Compound Name	RT	Response	PPB	Spike Level	%))	Result	Flag	RT	Response	ррв	Spike Level	%D	Result	Flag Limits(%	) Flag
3,4-Dinitrotolucne	30 47	4394	110.8000<	100	11%	Acceptable					100	-100%	Fails	(±15)	45
HMX	34.51	3416	82.8900<	100	-17%	Fails	(ou -	- 100	Newdel		100	-100%	Fails	(±15)	45
RDX	24 91	4222	99 2000<	100	-1%	Acceptable					100	-100%	Fails	(±15)	45
Pierie ACID				200	-100%	Fails					200	-100%	Fails	(±15)	
1,3,5-Transtrobenzene	21.35	6799	101 5000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
1,3-Dinitrobenzene	18 92	8855	100.6000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
TETRYL	40 33	8883	102 1000<	100	2.%	Acceptable					100	-100%	Fails	(±15)	45
Nitrobenzene	16 20	4158	105 0000<	100	514	Acceptable					100	-100%	Fails	(±15)	45
2.4,6-Trinstrotoluene	32 45	7793	96 3300<	100	-4%	Acceptable					100	-100%	Fails	(±15)	45
4-AM-2.6-DNT	28 82	6879	102.8000<	100	34	Acceptable					100	-100%	Fails	(±15)	45
2-AM-4,6-DNT	28 50	7694	103.6000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2,6-Dinitrotoluene	26 55	5096	101.8000<	100	24	Acceptable					100	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	25.74	8053	101.4000<	100	1Æ	Acceptable					100	-100%	Fails	(±15)	45
2-Nitrotoluene	22 07	\$149	213 4000<	200	14	Acceptable					200	-100%	Fails	(±15)	45
4-Nitrotoluene				200	-100%	Fails					200	-100%	Fails	(±15)	
3-Nitrotoluene	22.60	3149	100.3000<	100	94	Acceptable					100	-100%	Fails	(±15)	45
Nitroglycerin				100	-100%	Fails		38 17	5661	100.7000<	100	1%	Acceptable	(±15)	45
PETN				100	-100%	Fails		48 81	10339	104 9000<	100	5%	Acceptable	(±15)	45
3,5-Dimtroandine	24 39 [°]	6825	101 7000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
EGDN			.,	100	-100%	Fails		17.61	4413	104 3000	100	4%	Acceptable	(±15)	45



Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/11/2009 11:00 AM

C-000013.D

Chromatography Summary

Injection Date:

7/11/2009 5 54

LC9

Operator: fik

DataFile: Instrument ID: LC9 I/07102009A B/C-000013 D

Ylal Num: 3

Method 8330 Target Analyte Results

STD_6 09GCSV0054 .5K/.2/.2/.2/.2

Method File:

LC9 N07102009A.B\8330CNAB M

Start Cal Date:

6/9/2009 20 53

End Cal Date:

6/10/2009 4 20

Matrix: NONE SubList: CALsub

Samp. Info:

Sample:

STD_6 09GCSV0054 5K/ 2/.2/.2/ 2;2

Mise. Info:

, 6; ; ; , 3, CAL sub; ; 0; 1, 0

SpikeList:

1X

Sample Volume

Sample Weight

0 g

Dilution Factor

0 mL

Extract Volume

0 mL

			Signal I U	JV 250-20	55			,,,,		Signal 2 UV	358-205				
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene	30.69	8487	214.0000<	200	7%	Acceptable					200	-100%	Fails	(±15)	45
нмх	34.67	7594	184.3000<	200	-8%	Acceptable					200	-100%	Fails	(±15)	45
RDX	25 16	8673	203,8000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
Pierle ACID				500	-100%	Fails					500	-100%	Fails	(±15)	
1,3,5-Trantrobenzene	2154	13992	208 9000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dinitrobenzeno	19 18	18240	207 1000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	40 38	18246	209 7000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	16 47	829 t	209.4000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
2.4.6-Trinitrotoluene	32,59	16243	200 8000<	200	0%	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	29.08	13363	199 6000<	200	0%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	28.74	14987	201.7000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
2.6-Dinstrotoluene	26.81	10167	203 1000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dinitrotolucna	25 99	16528	208.1000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
2-Nitrotoluene	22 38	10164	421.3000<	400	5%	Acceptable					400	-100%	Fails	(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails	(±15)	
3-Nitrotoluene	22 90	6323	201 4000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
Nitroglycerin					-100%	Fails		38,25	11803	209 9000<	200	5%	Acceptable	(±15)	45
PETN					-100%	Fails		48 78	21503	208 1000<	200	4%	Acceptable	(±15)	45
3,5-Dinstroandine	24.65	13757	205 0000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
EGDN					-100%	Fails		17.80	9381	221,8000	200	11%	Acceptable	(±15)	45

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled ResultO = Over Calibration Range

Signals Differ by More Than 50%

Printed: 7/11/2009 11:30 AM

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC9

Batch ID: 07142009A

Method: Method 8330 Test: SOP WS-LC-0009

ICAL Date: See Calibration Report

Date	]	Time	]	Operator	Sample	ID	File	TD	Vol or		Extract	1	Diln	Comments
I	l		1		1		ŀ	J	Wt	ı	Vol	į		1
		*****	:==	***=====	***********			3=====		==:		===		F= == = = = = = = = = = = = = = = = = =
14-JUL-2009	] 1	13:57	ſ.	hk	Primer				0 g	•				l
14-JUL-2009	[ ]	15:00	£	hk	STD_5 09GCSV0238  LFX151AC 9183251	.2K/.1/.1/.1/	C-0000	02.	1301ga2	_	0 mL	I	1	1
4-JUL-2009	:	6:02	f	hk 🛶	LFX151AC 9183251	G9G010225-5 1	C-0000	03	.1390 mb	-	20 mL	ļ	1	104,42
4-JUL-2009	)	7:04	ſ	'nk	STD_6 090CSV0054	.5X/.2/.2/.2/	[C-0000	04.	0 g	}	O mL	ł	1	l
														<b> </b>

Polist GMV

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39 of 76

C-000002.D

Chromatography Summary

NONE

Injection Date: DataFile:

Instrument ID:

7/14/2009 15:00

I C9

Operator: fik

LC9 N07142009 A B\C-000002 D

Vial Num: 2

Method 8330 Target Analyte Results

•

SpikeList:

STD_5 09GCSV0238 .2K/.1/.1/.1

Method File:

LC9 N07142009A B\8330CNAB M

Start Cal Date: 6/9/2009 20 53 End Cal Date: 6/10/2009 4.20

Dilution Factor Extract Volume Sample Volume Sample Weight

1X

0 mL

0 mL 0 g

Matrix: | Samp. Info:

Sample:

SubList: CAL sub

STD_5 09GCSV0238 .2K/ 1/ 1/ 1/.1,2

Misc. Info:

; 5; ; , : 3, CAL sub; ; 0; 1; 0

		Signal 2 UV 358-205													
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Lerel	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene	31.08	4056	102.3000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
HMX	35 02	4112	99.7800<	100	0%	Acceptable					100	-100%	Fails	(±15)	45
RDX	25 52	4319	101 5000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
Picric ACID				200	-100%	Fails					200	-100%	Fails	(±15)	
1,3,5 Tranitrobenzene	21 79	6774	101 1000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
1.3-Dinitrobenzene	19.46	8818	100.1000<	100	Ç%	Acceptable					100	-100%	Fails	(±15)	45
TETRYL	40.68	9087	104.4000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
Nitrobenzene	1675	4130	104 3000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2,4,6-Trantrotoluene	32 85	7977	98.6100<	100	-1%	Acceptable					100	-100%	Fails	(±15)	45
4-AM-2,6-DNT	29 46	6865	102.5000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
2-AM-4,6-DNT	29.11	7562	101 8000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,6-Dinitrotoluene	27.17	5110	102.1000<	100	2%	Acceptable					100	$\boldsymbol{\cdot 100\%}$	Fails	(±15)	45
2,4-Dinitrotoluene	26 34	8075	101.7000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2-Nitrotoluene	22 75	5063	209 8000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
4-Nitrotoluene				200	-100%	Fails					200	-100%	Fails	(±15)	
3-Nitrotoluene	23 27	3193	101.7000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
Nitroglycerin				100	-100%	Fails		38 56	5792	103 0000<	100	3%	Acceptable	(±15)	45
PETN				100	-100%	Fails		49 00	10860	105.1000<	100	5%	Acceptable	(±15)	45
3,5-Dinitroaniline	25 01	6937	103 2000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
EGDN				100	-100%	Fails		18 00	4612	109.0000	100	9%	Acceptable	(±15)	45

Notes:

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/14/2009 4:29 PM

# C-000004.D

Chromatography Summary

NONE

Injection Date: DataFile:

7/14/2009 17:04

Operator: flk

LC9 R07142009A B\C-000004 D

Viai Num: 3

Method 8330 Target Analyte Results

Instrument ID:

Sample:

Matrix:

STD_6 09GCSV0054 .5K/.2/.2/.2/.2

SpikeList:

Method File:

LC9.I\07142009A B\8330CNAB M

Start Cal Dates	6/9/2009 20.53	End Cal Date:	6/10/2009 4.20	
Dilution Factor	Extract Volume	Sample Volume	Sample Weight	•
1X	0 mL	0 mL	0 g	

STD_6 09GCSV0054 .5K/2/2/2/3/.2,2

SubList: CAL sub

Samp. Info:

Misc. Info:

, 6, , ; ; 3, CAL sub; ; 0; 1; 0

Signal 1 UV 250-265									Signal 2 UV 358-205						
Compound Name	RT	Response	PPB	Spike Level	%1)	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,1-Dmitrotoluene	31.17	8088	204 0000<	200	24	Acceptable					200	-100%	Fails	(±15)	45
нмх	35 10	8294	201.3000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
RDX	25 64	8841	207.7000<	200	498	Acceptable					200	-100%	Fails	(≵15)	45
Picric ACID				500	-100%	Fails					500	-100%	Fails	(±15)	
1.3,5-Tranitrobenzene	21 85	13960	208.4000<	200	.146	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dimirobenzene	19 56	18224	207.0000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	40 73	18387	211 3000<	200	6%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	16 87	8317	210.0000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
2,4,6-Trintrotolvene	32.91	15780	195.1000<	200	-2%	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	29 58	13774	205 7000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	29.23	15080	203.0000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dintrotoluene	27,29	10345	206.7000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	26,45	16604	209.1000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
2-Nitrotoluene	22.87	10117	419.3000<	400	5%	Acceptable					400	-100%	Fails	(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails	(±15)	
3-Nitrotoluene	23 38	6428	204 7000<	200	2%	Acceptable					200	-100%	Fails	(±I5)	45
Nitroglycerin				200	-100%	Fails		33.61	12038	214,1000<	200	7%	Acceptable	(±15)	45
PETN				200	-100%	Fails		48 99	21884	211 8000<	200	6%	Acceptable	(±15)	45
3.5-Dinitroandine	25 12	13891	207.0000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
EGDN				200	-100%	Fails		18.07	9241	218 5000	200	9%	Acceptable	(±15)	45

Notes

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/14/2009 7:14 PM

## A-000006.D

Chromatography Summary

Injection Date:

7/8/2009 20 22

Operator: fik

Vial Nome 13

Method 8330 Target Analyte Results

1X

DataFile: Instrument ID: LC10 N070\$2009 B\A-000006.D

I.Cl0

Method File:

LC10 1\07082009.B\\$330AB M 6/10/2009 15 33

End Cal Date:

6/11/2009 13 47

Matrix:

SubList: WATER.sub

SpikeList:

LFXXW1AC 9183251 G9G010225-1

Start Cal Date: Dilution Factor

Extract Volume

20 mL

Samp. Info:

Sample:

WATER

LEXXWIAC 9183251 G9G010225-J 1X;0;

1021.57 mL

Sample Volume

Sample Weight 9 O

Mise, Info:

:.1021 57;;20;1;WATER sub;;0,1;LFXXW1AC

Signal I UV 25					Signal 2 UV 35	
<u> </u>				***********		
Response	Conc (ug/L)	Fing	RT	Diff	Response	Con-

Compound Name	RT .	Diff	Response	Conc (ug/L)	Fing	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.032	5380	2.2330<		18.24	0.029	10484	2.3740	,	0.0000	0.00	
HMX				ī	/ .						0 0264	010	
RDX	7.88	0.022	524	0.1317<	(Orth)	rmoclos	1_CA/				0.0636	0.10	45
Pione ACID							46	UL			0.1224	0.98	
1,3,5-Trinitrobenzene	10 12	-0 038	247	0 0328<			•	UC 7/14/09			0 0303	0.10	45
1,3-Dinitrobenzene											0 0489	010	
TETRYL,											0.0489	0 10	
Nitrobenzene											0 0489	0 10	
2.4,6-Trinstrotoluene											0.0235	010	
4-AM-2,6-DNT											0.0215	010	
2-AM-4,6-DNT											0 0979	0 20	
2,6-Dinitrotolucae											0 0489	0.10	
2,4-Dinitrotoluene											0 0489	010	
2-Nitrotoluene											0 0705	0.49	
4-Nitrotoluene									,		0 0705	0 49	
3-Nitrotoluene											0.0607	0 49	
Nitroglycerin											0.3230	0 64	
PETN											0 2937	0.64	
3,5-Dinitroaniline											0 0245	0.98	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.4472	2.2330	91	2.4472	2,3740	97	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result O = Over Calibration Range

Signals Differ by More Than 50%

Printed: 7/14/2009 12:59 PM

# C-000005.D

Chromatography Summary

Injection Date:

7/10/2009 21:36

Operator: flk

Method 8330 Target Analyte Results

DataFile: Instrument ID:

LC9 N07102009A BIC-000005 D

Vial Num: 12

Sample:

LFXXW1AC 9183251 G9G010225-1

Signal 1 UV 250-265

1X

WATER

SubList: WATER.sub

SpikeList:

Matrix: LFXXWIAC 9183251 G9G010225-1 1X;0; Samp. Info:

Mise. Info:

;;1021,57;;20;1;WATER.sub;;0;1,LFXXW1AC

Method File:

1.C9.1\07102009A B\8330CNAB.M

Signal 2 UV 358-205

6/9/2009 20 53 6/10/2009 4.20 Start Cal Date: End Cal Date: Dilution Factor Sample Volume Sample Weight Extract Volume 20 mL 1021.57 mL 0 g 1X

								11G.101 2 0 1 000					
Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag A	IDL	RI,	Flag
3,4-Dinitrotoluene	30.52	-0.138	4974	2.4560<			······································			0.4	0000	0.00	45
кмх					,	. 1				0.9	0264	0 10	
RDX	24.99	0.140	269	0.1237<	Car. fr	rmed				0.4	0636	0.10	45
Previe ACID						JUL				0	1224	0.96	
1,3.5-Trinitrobenzeue						rmed Jul 7/140	i G			0	0303	0 10	
1,3-Dinitrobenzene						Mide	, ,			0.0	0489	0 10	
TETRYI.										0.0	0489	0 10	
Nitrobenzene										0.0	0489	010	
2,4,6 Trinureteluene										0.0	0235	0.10	
4-AM-2,6-DNT										0 (	0215	010	
2-AM-4,6-DNT										0.0	0979	0 19	
2,6-Dinitrotoluene										0.0	0489	0 10	
2,4-Dinitrotolucae										0.0	)489	0.10	
2-Nitrotoluene										0.0	705	0.48	
4-Nitrotoleene										0.0	0705	0.48	
3-Nitrotoluene										0.0	607	0.48	
Nitroglycerin										0.3	3230	0 62	
PETN										02	937	0 62	
3,5-Dinitroaniline										0.0	245	0 96	

Surrogates:	Spiked	Recovered	%Rec		covered %Rec	Limits
3,4-Dinitrotoluene	2,4472	2.4560	100	2.1472	0	(48 143)

Notes

M == Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O -= Over Calibration Range

2329MWO1BW

A-000007.D

Chromatography Summary

Injection Date;

7/8/2009 21:12

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: LC10 N07082009 B\A-000007 D LC10

Vial Num:

Sample:

LFXX61AC 9183251 G9G010225-2 1X Method File:

1.C10 I/07082009 B\8330AB.M

ifart Cal Date:	6/10/2009 15:33	End Cal Date:	6/11/2009 13 47	
Dilution Factor	Extract Volume	Sample Volume	Sample Weight	
	** *		^	

Samp. Info:

WATER

SubList: WATER.sub

SpikeList:

Matrix

LFXX61AC 9183251 G9G010225-2 1X.0,

Misc. Info:

.;1022.4;;20.1;WATER sub.,0.1;LFXX61AC

Signal 2	UV	358-205	
----------	----	---------	--

Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag MDL	RL	Flag
3,4-Dinitrotoluene	18.22	0.008	5488	2,2760<		18.22	0.008	10601	2.3990	0.0000	0.00	
нмх										0 0264	0 10	
RDX										0 0636	0.10	
Piene ACID										0 1223	0 98	
1,3,5-Trinitrobenzene	10 11	-0 089	252	0.0334<						0 0303	0 10	45
1.3-Dinitrobenzene										0 0489	0 10	
TETRYL										0 0489	0.10	
Nitrobenzene										0 0489	0.10	
2,4,6-Trinitrotoluene										0 0235	0.10	
4-AM-2,6-DNT										0 0215	0 10	
2-AM-4,6-DNT										0 0978	0.20	
2,6-Dinitrotoluene										0 0489	0.10	
2,4.Dimtrotoluene										0.0489	0.10	
2-Nitrotoluene										0 0704	0.49	
4-Nitrotoluene										0 0704	0 49	
3-Nitrotoluene										0.0606	0 49	
Nitroglycerin										0 3228	0 64	
PETN										0 2934	0 64	
3,5.Dmitroandine										0.0245	0.98	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	% Rec	Limits
3,4-Dinitrotoluene	2.4452	2.2760	93	2,4452	2.3990	98	(79-111)

Notes'

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Bennifres ton

23L4MW460W

A-000008.D

Chromatography Summary

Injection Date:

7/8/2009 22 03

I.C10

Operator: fik

DataFile: Instrument ID: LC10 N07082009 BVA-000008.D

Vial Num: 15

Sample:

LFX111AC 9183251 G9G010225-3 1X Method File:

1.C10 1\07082009 B\8330AB.M

tart Cal Date:	6/10/2009 15 33	End Cal Date:	6/11/2009 13 47	
Dilution Pacter	Extract Volume	Sample Volume	Sample Weight	

Matrix: WATER

Method 8330 Target Analyte Results

SubList: WATER sub

SpikeList:

IX20 mL 1024,15 mL

Samp, Info: Misc. Info:

LFX1[1AC 9183251 G9G010225-3 1X:0;

..1024 15:,20,1.WATER sub,.0,1,LFX111AC

Signal 1 UV 250-265 Signal 2 UV 358-205

										· · · · · · · · · · · · · · · · · · ·				
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag MDL	RL	Flag		
3,4-Dinitrotolucne	18.22	0.013	5492	2,2740<		18.23	0.017	10608	2,3960	0,000	0.00			
КМН	5.30	0 007	178	0 0288<			/			0 0264	0.10	45		
ROX	7.87	0.013	16452	4.1250<	- cont	romay	on			0.0635	0.10	45		
Picrie ACID						.8 \	. Kono	W M		0 1221	0.98			
1,3,5-Trinitrobenzene	10.36	0.160	1266	0.1675<	-100	Cropor	، ،	N 19- N14109		0.0303	0.10	45		
1,3-Dinitrobenzene							Ą.W	<b>P</b> (0)		0 0488	010			
TETRYI,							•	11400		0 0488	0.10			
Nitrobenzene								•		0.0488	0.10			
2,4,6-Tranitrotoluene										0 0234	0 10			
4-AM-2.6-DNT										0.0215	0 10			
2-AM-4,6-DNT										0 0976	0 20			
2,6 Dimitrotoluene										0.0488	0 10			
2,4 Dinitrotolucine										0 0488	0.10			
2-Nitrotoluene										0.0703	0.49			
4-Nitrotoluene										0.0703	0 49			
3-Nitrotoluene										0 0605	0,49			
Nitroglycerin										0 3222	0 63			
PETN										0 2929	0 63			
3,5-Dmitroaniline										0 0244	0 98			

		<del></del>					
Surrogates:	Spiked	Recovered	% Rec	Spiked	Recovered	% Rec	Limits
3,4-Dinitrotolucne	2,4310	2.2740	93	2,4410	2,3960	98	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/14/2009 1:02 PM

# C-000006.D

Chromatography Summary

Injection Date:

7/10/2009 22:39

1.09

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: LC9 I\07102009A B\C-000006 D

Vial Num: 13

Sample:

LFX111AC 9183251 G9G010225-3 1X

Method File:

1,09 I\07102009A B\8330CNAB,M

tart Cal Date:	6/9/2009 20 53	End Cal Date:	6/10/2009 4:20	
Dilution Factor	Extract Volume	Sample Volume	Sample Weight	
1X	20 mL	1024.15 mL	0 g	

Samp. Info:

SubList: WATER sub

SpikeList:

Matrix:

Misc. Info:

LFX111AC 9183251 G9G010225-3 1X;0;

;;1024 15,,20;1,WATER sub,;0;1;LFX111AC

Signal 1 UV 250-265 Signal 2 UV 358-205

Compound Name	RT	Diff	Respo	nse	Cone (ug/L)	Flag	RT	Dift	Response	Conc (ug/L)	Flag MDL	RL	Flag
3,4.Dinitrotoluene	30.74	0.087		4980	2,4520<					•	0.0000	0.00	45
HMX	34.72	0 068		89	0 0422<	;		l			0 0264	0.10	45
RDX	25.26	0.125		8280	3 <i>,79</i> 90<	٠ <u>ـ روم</u> ن	- und	•			0.0635	0.10	45
Piene ACID	1.1	A 50	0	UN			gu.				Ø 1221	0 95	
1.3.5-Trinitrobenzene 🚈 .	$V^{qq}$	Control	with	1 m			The same	nt.l.fa			0 0303	0.10	
1.3-Dinitrobenzeno							11	4501			0 0488	010	
TETRYL											0.0488	0 10	
Nitrobenzene											0.0188	0 10	
2,4,6-Trinitrotoluene											0 0234	0 10	
4-AM-2,6-I)NT											0 0215	0.10	
2-AM-4,6-DNT											0 0976	0 19	
2,6-Dinitrotoluene											0.0488	010	
2.4-Dinstrotoluene											0 0488	0 10	
2-Nitrotoluene											0 0703	0.48	
4-Nitrotoliiene											0 0703	0 48	
3-Nitrotoluene											0 0605	0.48	
Nitroglycerin											0.3222	0 62	
PETN											0.2929	0 62	
3,5-Dinitroamlme											0 0244	0.95	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3.4-Dinitrotoluene	2,4410	2.4520	160	2,4410		0	(48-143)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ'by More Than 50%

O = Over Calibration Range

## A-000009.D

Chromatography Summary

Injection Date:

7/8/2009 22 53

Operator: fisk

DateFile: LC10 I\07082009 B\A-000009 D Vist Num: 16

Method 8330 Target Analyte Results

Instrument ID:

LC10

Sample:

LFX121AC 9183251 G9G010225-4 1X

Method File:

LC10 N07082009 B\8330AB M

Start Cal Date:

6/10/2009 15:33

End Cal Date:

6/11/2009 13 47

Matrix: WATER

SubList: WATER, sub

Dilution Factor

Extract Volume

Sample Volume

Sample Weight

Samp. Info:

LFX121AC 9183251 G9G010325-4 1X,0,

SpikeList:

IX 20 mL 1019.2 mL

Úg

Mise. Info:

3.1019 2,520,1,WATER sub,,0 1;LFX121AC

Signal I UV 250-265

Signal 2 UV 358-205

Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag	MDI.	RL	Flag
3,4-Dinitrotolucne	18.24	0.030	5457	2.270( <		18.24	0.033	10513	2.3860		0.0000	0.00	
HMX	5.30	0 006	169	0 0275<							0.0265	0 10	45
RDX	7.87	0.020	16232	4.0890<	- tens -	implon.	Chi	46		(	0.0638	0.10	45
Picne ACID					, ,	Je	Au.	www			0 1226	0.98	
1,3,5-Trinitrohenzene	10.39	0.183	1769	0.2352<	_ 1/1	CONTAIN	-3r (3r c)	w. <u>no</u> Yuq		(	0.0304	0.10	45
1,3-Dinitrobenzene							attle	ン		(	0 0491	0 10	
TETRYL.							W 1	111114		(	0 0491	0.10	
Nhrobenzene							ા	401		(	0 0491	010	
2.4.6-Transtrotoluene										(	0035	010	
4-AM-2.6-DNT										(	0.0216	0 10	
2-AM-4.6-DNT										(	0981	0 20	
2,6-Dintrotoluene										0	1610	010	
2,4-Dinitrotohiene										C	0491	0.10	
2-Nitrotoluene										0	0.0706	0 49	
4-Nitrotoluene										0	0.0706	0 49	
3-Nitrotoluene										0	0608	0.49	
Nitroglycerin										0	3238	0 64	
PETN										0	2943	0.64	
3,5-Dmitroanilme										0.	.0245	0.98	

Surrogates:	Spiked	Recovered	% Rec	Spiked	Recovered	%Rec	Limits
<del></del>			******				
3,4-Dinitrotoluene	2,4529	2,2700	93	2,4529	2,3860	97	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/14/2009 1:03 PM

## C-000007.D

Chromatography Summary

Injection Date:

7/10/2009 23,41

Operator: fik

0 0706

0.0706

0 0608

0.3238

0.2943

0.0245

048

048

0.48

0.63

0 63

096

DataFile:

LC9 I\07102009A B\C-000007 D

Vial Num:

Method 8330 Target Analyte Results

Instrument ID;

1.09

Sample:

LFX121AC 9183251 G9G010225-4 1X

Method File:

LC9 I\07102009A B\8330CNAB.M

Start Cal Date:	6/9/2009 20 53	End Cul Date:	6/10/2009 4:30
Dilution fracto		Sample Volume	Sample Weight

Samp. Info:

SubList: WATER sub

SpikeList:

Matrix:

2-Nitrotolucne

4-Nitrotoluene

3-Nitrotoluene

Nitroglycerin

3,5-Dinitroaniline

PETN

LFX121AC 9183251 G9G010225-4 1X,0,

ŧΧ

20 mL

Signal 2 UV 358-205

1019.2 mL

Mise. Into:

WATER

;;1019 2;;20;1;WATER.sub;:0;1;LFX121AC

Compound Name	KI	Dill	Kesponse	COUG (BB/P)	rag	Ļ,	KI		Response	Cone (ngr.)	riag	MIDE	KL	riag
3,4-Dinitrotoluene	30.40	-0.259	5098	2.5230<	М							0.0000	0.00	45
HMX						_	j l	. L				0 0265	0.10	
RDX	24,85	-0.286	8046	3.7100<	M	C	inter.	Men				0.0638	0.10	45
Piene ACID	1	.1 4	. 1 . 43					AUL				0.1226	096	
Piene ACID 1,3.5-Trinitrobenzene	- VOA	~ CIWAY!	Market Market					9 1	fic(un			0 0304	0.10	
1,3-Dinitrobenzene		-0.292	1390	0.3098<	M			, M	lac.			0.0491	0.10	45
TETRYL												0 0491	0.10	
Nitrobenzene												0 0491	010	
2,4,6-Trinitrotoluene												0 0235	0.10	
1-AM-2,6-DNT	28 72	-0.320	96	>18200	М				volumos?			0 0216	010	45
2-AM-4,6-DNT								'	v v			0 0981	0 19	
2,6-Dinitrotoluene												0.0491	0.10	
2.4-Dintrotoluene												0 0491	0.10	

		<del></del>					
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
1.4.Dinitrotologna	2.4520	2 5210	102	2.4520			(4) 1 (4)

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

WASOWNELES

# A-000010.D

Chromatography Summary

Injection Date:

7/8/2009 23:44

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: 1.C10 I\07083009 B\A-000010 D 1.C10

Vial Num: 17

Sample:

LFX151AC 9183251 G9G010225-5 1X

Method File: Start Cal Date: 1.C10 I\07082009.B\8330AB M

6/10/2009 15 33 Dilution Factor

End Cal Date:

6/11/2009 13:47

Matrix: WATER

SpikeList:

Extract Volume

Sample Weight

Samp. Info:

SubList: WATER sub

1X

 $20 \, \mathrm{mL}$ 

Sample Volunie 1021.92 mL

0 g

Mise, Info:

LPX151AC 9183251 G9G010225-5 1X.0, .;1021.92,;20:1.WATER sub.,0,1,LFX151AC

Signal 1 UV 250-265

Signal 2 UV 358-205

											<del></del>	====
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag MDL	RL	Flag
3,4-Dinitrotoluene	18.23	0.021	5597	2,3220<		18.24	0.025	10764	2,4370	0.0000	0.00	
нмх	5.30	0.005	2345	0.3798<	~> (.08	Livnsed	in ou			0.0264	0.10	45
RDX	7,87	0.018	37290	9,3690<	-10"	,,,,				0.0636	0.10	45
Pierie ACID						A S	Lo	na u		0 1223	0 98	
1,3,5.Trinitrobenzene	10.38	0.171	1655	0.2194<	_\W\$	in XVV	wer v	10764 n cv 100 June 11410		0.0303	0.10	45
1,3-Omitrobenzene								JUL .	_	0 0489	010	
TETRYL								9 21146	9	0 0489	0 10	
Nitrobenzene								<i>,</i> ,		0 0489	0.10	
2,4,6-Transtrotoluene										0 0235	010	
4-AM-2,6-DNT										0 0215	0 10	
?-AM-4,6-DNT										0.0979	0 20	
2,6-Dinstrotoluène										0 0489	010	
2,4 Dinitrotoluene										0 0489	010	
2-Nitratoluene										0.0705	0 49	
4-Nitrotohiene										0 0705	0 49	
3-Nitrotoluene										0 0607	0 49	
Naroglyceria										0 3229	0 64	
PETN										0 2936	0.64	
3,5-Dinitroaniline										0 0245	0 98	

	~~:====:=:::::::::::::::::::::::::::::						
Surrogates:	Spiked	Recovered	% Rec	Spiked	Recovered	% Rec	Limits
3.4-Dinitrotoluene	2,4464	2.3220	95	2,4464	2.4370	100	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/14/2009 1:03 PM

Chromatography Summary

Injection Date:

7/14/2009 16:02

LC9

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: LC9 I\07142009A B\C-000003.D

Vial Num: 11

Sample:

LFX151AC 9183251 G9G010225-5 1X

SpikeList:

Method File:

LC9.N07142009A B\8330CNAB.M

tart Cal Date:	6/9/2009 20:53	End Cal Date:	6/10/2009 4 20	
Dilution Factor	Extract Volume	Sample Volume	Sample Weight	
1X	20 mL	1021.92 mL	О́g	

Misc. Info:

Matrix:

WATER SubList: WATER sub

Santo. Info: LFX151AC 9183251 G9G010225-5 1X;0;

..1021 92;;20;1;WATER.sub;;0;1;LFX151AC

Zorbax Cyano(250nm) Zorbax Cyano(250nm-205nm)

 Compound Name	RT	nia	Response	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag MDL	RL	Flag
3,4-Dinitrotoluene	31.20	0.030	4881	2,4090<				1		0.0000	0.00	45
HMX	35.09	-0.006	823	0.3908<		Con A c	NAME O	1		0.0264	0.10	45
RDX	25.67	0.032	18997	8.7360<	- )	Confir	10 (4 0	`		0.0636	0.10	45
Pierie ACID		Δ		í	,	V				0 1223	0.96	
1,3,5-Trinitrobenzene	- 1/C	34	CONLICA	~~ (1)						0 0303	0.10	
1,3-Dinitrobenzene			1)			14/15/0	1			0 0489	0.10	
TETRYL			confir	J)	$\mathcal{N}$	J 1 (1 / ( °				0.0489	0.10	
Nitrobenzene										0 0489	0.10	
2,4,6-Trimtrotolucne										0 0235	0 10	
4-AM-2,6-DNT	29.66	0 075	84	0 0246<						0.0215	0.10	45
2 AM-4,6-DNT										0 0979	0 19	
2,6-Dinstrotoluene										0 0489	010	
2,4-Dinitrotoluene										0.0489	0.10	
2-Nitrotolucne										0.0705	0.48	
4-Nitrotoluene										0.0705	0.48	
3-Nitrotoluene										0 0607	0.48	
Nitroglycerin										0 3229	0.62	
Petn										0.2936	0.62	
3,5-Dintroaniline										0.0245	0.96	

Surrogates:	Spiked	Recovered	%Rec	Spiked Recovered	d %Rec	Limits
3,4-Dinitrotoluene	2,4464	2.4090	98	2,4464	0	(48-143)

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

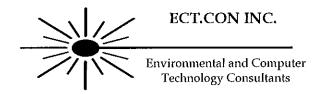
O = Over Calibration Range

Printed: 7/15/2009 5:10 PM

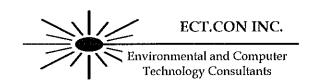
Data Validation Report Michael Baker Jr., Inc

**SDG#: PSF0979** 

Camp Bonneville



3531 Fox Chase Drive Imperial, PA 15126 (724) 695-8042 FAX (724) 695-2698 e-mail: ectconinc@comcast.net



# **Data Validation Report**

SDG#	PSF0979					
Validation Report Date	August 17, 2009					
Validation Guidance	USEPA CLP National Functional Guidelines for Data Review					
Client Name	Michael Baker Jr., Inc.					
Project Name	Camp Bonneville					
Laboratory	TestAmerica					
Analytical Parameters	Explosives					
Analytical Method	SW-846 8330					

Samples/Matrix:

•	Sampieo Marini.											
	Date	Location	Portland ID	Sacramento	Explosives	Matrix						
	Sampled			ID								
	06/29/09	23L4MW04AW	PSF0979-01	LF3H4	X	Aqueous						
	06/29/09	23L4MW02AW	PSF0979-02	LF3H5	Х	Aqueous						
	06/29/09	23L4MW02BW	PSF0979-03	LF3H6	Х	Aqueous						

Analytical data in this report were screened to determine analytical limitations of the data based on specific quality control criteria. This screening assumes analytical results are correct as reported and merely provides an interpretation of the reported quality control results. Laboratory calculations have been verified as part of this validation. Specific findings on analytical limitations are presented in this report. Annotated Form 1s or spreadsheets for samples reviewed are included after the Data Assessment Findings. Form 1s for the MS/MSD samples and spreadsheets are not annotated.

#### **SUMMARY**

The sample set for the Camp Bonneville site consists of three aqueous field samples. These samples were analyzed for explosives as provided in the Table 1. The findings presented in this review of the analytical data assume that the information presented by the analytical laboratory is correct.

The explosives findings are based upon the assessment of the following:

- Data Completeness
- Holding Times
- Calibration (Initial and Continuing)
- Blanks
- System Monitoring Compounds (Surrogate Spikes)
  - Matrix Spike/Matrix Spike Duplicates
    - Laboratory Control Standard Results
- Target Compound Identification
  - Compound Quantification and Reported Contract Quantitation Limits
- * System Performance
- * Criteria were met for this evaluation item.

This evaluation was conducted in accordance with USEPA CLP National Functional Guidelines for Organic Data Review and the analytical method. Findings from this evaluation should be considered when using the analytical data. This report presents a summary of the data qualifications based on the review of the aforementioned evaluation criteria. This is followed by annotated Form 1s/ spreadsheets. Finally, the worksheets used to perform the evaluation are provided.

#### **FINDINGS**

# 1. Laboratory Control Sample Results

Recovery of HMX (116%) and RDX (124%) exceeded the laboratory's upper quality control limits. In the following samples, positive results for HMX and RDX were qualified as estimated "J".

23L4MW04AW

23L4MW02AW

23L4MW02BW

#### 2. Compound Quantitiation

Positive results less than the reporting limit were qualified as estimated "J" due to the level of uncertainty.

#### NOTES

## Matrix Spike/Matrix Spike Duplicate Results

A MS/MSD was not analyzed with this SDG. A laboratory control sample was analyzed. Data were not qualified on this basis.

# **Laboratory Control Sample Results**

Recovery of several compounds exceeded the laboratory's upper quality control limits. The affected compounds were not detected in the associated samples. Data were not qualified on this basis.

## **Compound Quantitation**

Sample 23L4MW02BW was analyzed and reported at a 5X dilution factor due to the presence of RDX above the linear calibration range of the instrument. This accounts for the elevated reporting limits for this sample. Data were not qualified on this basis.

#### Field Duplicate Results

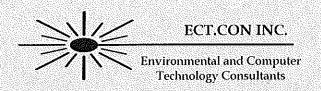
No field duplicates were included with this SDG. Data were not qualified on this basis.

Data-Reviewer

Date

## Glossary of Data Qualifiers

U	Not Detected.	The associated number indicates approximate sample
		concentration necessary to be detected.
UJ	Not Detected.	Quantitation limit may be inaccurate or imprecise.
J	Analyte Present.	Reported value may not be accurate or precise.
N	Consider Present.	Tentative identification. Special methods may be needed to
		confirm its presence or absence in future sampling efforts.
R	Unusable Result.	Analyte may or may not be present in the sample.
UR	Unusable Result.	Analyte may or may not be present in the sample.



# Annotated Form 1's (Spreadsheet)

#### TestAmerica Portland

Client Sample ID: PSF0979-01

23 L4 MW O4AW

(79 - 111)

Lot-Sample #: G9G030156	-001 Work	Order #:	LF3H41AC	Matrix	WATER
-------------------------	-----------	----------	----------	--------	-------

Date Sampled...: 06/29/09 Date Received..: 07/02/09 Analysis Date ..: 07/09/09 Prep Date....: 07/06/09 Prep Batch #...: 9187206 0306

99

Dilution Factor: 0.99	Method	: SW846 83	: SW846 8330			
		REPORTIN	IG			
PARAMETER	RESULT	LIMIT	UNITS	MDL		
Nitroglycerin	CIN	0.64	ug/L	0.15		
PETN	CIM	0.64	ug/L	0.23		
Picric Acid	CIM	0.99	ug/L	0.12		
2-Amino-4,6-	CIN	0.20	ug/L	0.099		
dinitrotoluene						
4-Amino-2,6-	СМ	0.099	ug/L	0.022		
dinitrotoluene						
1,3-Dinitrobenzene	ND	0.099	ug/L	0.050		
2,4-Dinitrotoluene	ио	0.099	ug/L	0.050		
2,6-Dinitrotoluene	NO	0.099	ug/L	0.050		
нмх	ND	0.099	ug/L	0.027		
Nitrobenzene	ND	0.099	ug/L	0.050		
2-Nitrotoluene	ND	0.40	ug/L	0.071		
3-Nitrotoluene	ND	0.40	ug/L	0.061		
4-Nitrotoluene	ND	0.50	ug/L	0.071		
RDX	2.8 🕽	0.099	ug/L	0.064		
Tetryl	ND	0.099	ug/L	0.050		
1,3,5-Trinitrobenzene	ND	0.099	ug/L	0.031		
2,4,6-Trinitrotoluene	ND	0.099	ug/L	0.024		
•	PERCENT	RECOVERY				
SURROGATE	RECOVERY	LIMITS				

3,4-Dinitrotoluene

#### TestAmerica Portland

#### Client Sample ID: PSF0979-02

HPLC 23LYMWO2AW

Matrix....: WATER Work Order #...: LF3H51AC Lot-Sample #...: G9G030156-002

Date Sampled...: 06/29/09 Date Received..: 07/02/09 Analysis Date..: 07/09/09 Prep Date....: 07/06/09

Prep Batch #...: 9187206

Dilution Factor: 1	Method	: SW846 83	SW846 8330			
		REPORTIN	1G			
PARAMETER	RESULT	LIMIT	UNITS	MDL		
Nitroglycerin	CIN	0.65	ug/L	0.15		
PETN	CIM	0.65	ug/L	0.23		
Picric Acid	CIM	1.0	ug/L	0.12		
2-Amino-4,6-	CIM	0.20	ug/L	0.10		
dinitrotoluene						
4-Amino-2,6-	CIM	0.1.0	ug/L	0.022		
dinitrotoluene						
1,3-Dinitrobenzene	CIN	0.10	ug/L	0.050		
2,4-Dinitrotoluene	NID	0.10	ug/L	0.050		
2,6-Dinitrotoluene	CIM	0.3.0	ug/L	0.050		
HMX	3.8 →	0.3.0	ug/Ľ	0.027		
Nitrobenzene	CIM	0.10	ug/L	0.050		
2-Nitrotoluene	CIM	0.40	ug/L	0.072		
3-Nitrotoluene	CIM	0.40	ug/L	0.062		
4-Nitrotoluene	CIM	0.50	ug/L	0.072		
ROX	19 7	0.10	ug/L	0.065		
Tetryl	CIM	0,10	ug/L	0.050		
1,3,5-Trinitrobenzene	NIO	0.10	ug/L	0.031		
2,4,6-Trinitrotoluene	CIM	0.10	ug/L	0.024		
	PERCENT	RECOVERY				
SURROGATE	RECOVERY	LIMITS				
			- 1			

3,4-Dinitrotoluene (79 - 111)102

#### TestAmerica Portland

Client Sample ID: PSF0979-03

HPLC 23L4MW02BW

Lot-Sample #...: G9G030156-003 Matrix....: WATER Work Order #...: LF3H61AC

Date Sampled...: 06/29/09 Date Received..: 07/02/09 Prep Date....: 07/06/09

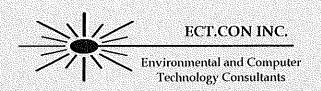
Analysis Date..: 07/11/09 Prep Batch #...: 9187206

Method.....: SW846 8330 Dilution Factor: 5

	•	REPORTIN	1G	
PARAMETER	RESULT	LIMIT	UNITS	MDL
Nitroglycerin	NIX	3.2	ug/L	0.75
PETN	ND	3.2	ug/L	1.2
Picric Acid	NI	5.0	ug/L	0.62
2-Amino-4,6-	NI)	1.0	ug/L	0.50
dinitrotoluene				
4-Amino-2,6-	MD	0.50	ug/L	0.11
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.50	ug/L	0.25
2,4-Dinitrotoluene	0.36 J	0.50	ug/L	0.25
2,6-Dinitrotoluene	NI)	0.50	ug/L	0.25
HMX	4.3 "\[ \]	0.50	ug/L	0.14
Nitrobenzene	ND	0.50	ug/L	0.25
2-Nitrotoluene	ND	2.0	ug/L	0.36
3-Nitrotoluene	ND	2.0	ug/L	0.31
4-Nitrotoluene	ND	2.5	ug/L	0.36
RDX	84 🗇	0.50	ug/L	0.32
Tetryl	ND	0.50	ug/L	0.25
1,3,5-Trinitrobenzene	ND	0.50	ug/L	0.16
2,4,6-Trinitrotoluene	ND	0.50	ug/L	0.12
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS	****	
3,4-Dinitrotoluene	102	(79 - 11	1)	

#### NOTE(S):

J Estimated result. Result is less than RL,



# Support Documentation

# Laboratory Case Narrative



#### DATA DELIVERABLES PACKAGE

Michael Baker Jr., Inc. James D. Peyton 5261 Fountain Drive, Suite A Crown Point, IN 46307

Client Project: Camp Bonneville Groundwater Client Project Number: 110002 Task 6200

TA Work Order#: PSF0979

TA Project Manager: Estella Rieben

The total number of pages contained in this data package is:

147

July 31, 2009

TestAmerica - Portland 9405 S. W. Nimbus Avenue Beaverton, Oregon 97008 (503) 906-9200 (503) 906-9210



#### CASE NARRATIVE

Client:

Michael Baker Jr., Inc.

110002 Task 6200

**Date Sampled:** 

6/29/2009

Project:

Camp Bonneville Groundwater

Date Received:

6/30/2009

Lab:

PSF0979

SAMPLE RECEIPT:

Samples were received intact, on ice, with chain of custody

documentation. The sample temperature was measured at 2.3° C upon

receipt at the laboratory.

HOLDING TIMES:

All samples were analyzed within holding times.

**PROBLEMS** 

**ENCOUNTERED:** 

No problems were encountered.

QA/QC CRITERIA:

No problems were encountered during sample analysis.

OBSERVATIONS:

No significant observations were made.

SUBCONTRACTED:

314.0 9196314 (Perchlorate) and SW846 8330 analyses were performed at the TestAmerica facility in West Sacramento, CA. The data package

for the specified analyses is included in this data deliverables package as

Appendix A.

"I certify that this data package is in compliance with the contract both technically and for completeness, for all conditions other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Director or his designee, as verified by the following signature."

**TestAmerica Portland** 

Estella Rieben Project Manager

Page 1



THE LEADER IN ENVIRONMENTAL TESTING

Michael Baker Jr., Inc.

Crown Point, IN 46307

5261 Fountain Drive, Suite A

PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 905.9210

Camp Bonneville Groundwater

Project Name: Project Number: Project Manager:

110002 Task 6200

Report Created: 07/21/09 08:55

James D. Peyton

ANALYTICAL REPORT FOR SAMPLE
------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23L4MW04AW	PSF0979-01	Water	06/29/09 16:30	06/30/09 17:10
23L4MW02AW	PSF0979-02	Water	06/29/09 18:00	06/30/09 17:10
23L4MW02BW	PSF0979-03	Water	06/29/09 21:00	06/30/09 17:10
TB-261	PSF0979-04	Water	06/29/09 00:00	06/30/09 17:10

TestAmerica Portland

Estella K Rieben

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.



THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

Michael Baker Jr., Inc. Project Name: Camp Bonneville Groundwater

5261 Fountain Drive, Suite AProject Number:110002 Task 6200Report Created:Crown Point, IN 46307Project Manager:James D. Peyton07/21/09 08:55

#### **Notes and Definitions**

#### Report Specific Notes:

a - Spiked analyte recovery is outside stated control limits.

J - Estimated result. Result is less than RL.

Elevated Reporting limit. The reporting limit is elevated due to high analyte levels.

#### Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported

on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic - Electronic Signature added in accordance with TestAmerica's Electronic Reporting and Electronic Signatures Policy.

Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland

Estella K'Richen

Estella Rieben, Project Manager

#### **Case Narrative**

## TestAmerica West Sacramento Project Number G9G030156

#### WATER, 8330, Nitroaromatics & Nitramines

Samples: 1, 2, 3

The laboratory control sample (LCS) associated with this extraction batch has percent recoveries for some analytes above the established control limits indicating a potential high bias in the data. There is no adverse impact upon the data for the analytes that are not detected at concentrations above the reporting limit in the samples. The samples do have detected concentrations of RDX and HMX but this was not discovered until after the recommended hold time for extraction had expired. After consulting with Ms. Rieben, the samples were not re-extracted and the analytical results are included in this report.

There was insufficient sample volume to prepare a matrix spike/matrix spike duplicate (MS/MSD) pair with this extraction batch.

There are no other anomalies associated with this project.

## Sample Summary

## TestAmerica West Sacramento Project Number G9G030156

<u>WO#</u>	Sample #	Client Sample ID	Sampling Date	Received Date
LF3H4	1	PSF0979-01 Q ₹ LH	MW 0 4 BUB/29/2009 04:30 PM	7/2/2009 09:50 AM
LF3H5	2	PSF0979-02	6/29/2009 06:00 PM 6/29/2009 09:00 PM	7/2/2009 09:50 AM
LF3H6	3	PSF0979-03 ^{へうし} りい	WOJAW 6/29/2009 09:00 PM	7/2/2009 09:50 AM
		2344	MWORKI	

#### Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

### QC DATA ASSOCIATION SUMMARY

#### G9G030156

#### Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH_#	PREP BATCH #	MS RUN#
001	WATER	SW846 8330		9187206	
002	WATER	SW846 8330		9187206	
003	WATER	SW846 8330		9187206	

# Chain of Custody

# **TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

9405 SW Minhus, Mc, Benkarton, OR 97008 74 15 11/20 North Creek Pkwy N Sune 400, Bothelf, WA 980 (1-8244 (1922 P. First No. Spikane Witter) in 5 8 P.

725-425-92(8) FAN 420 929-67 THE BUT OF SHEET AND STREET 303-044 9204 TVV 96-9710

AT. WO ID Turnaryind Requests less than standard may in ar Bush Chorg. , Work Order #: 1560979 * American Normania, Amago.

[10] The State of The State of The State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of State of St DATE: TURNAROUND REQUEST No TICS 6 NO TICS 6 NO TICS LOCATION COMMENTS W 6 NO TICS in Business Days OTHER Specify MATRIN # OF (W. S. O) CONT. ≥ ≥  $\geq$ CHAIN OF CUSTODY REPORT PRINT NAME: REQUESTED ANALYSES SAME ADORESS PRESERVATIVE FOLM MBEK // OCC. 2 INVOICE TO: BAKK DATE: 6/3019 DATE: 6/32/09 HCL NA MA शुल्लाहरू २००१ NEPORTTO: MARCARET JAMES
ADDRESS: 5261 FOUNTAIN DRIVE SUITE A
CROLLO POINT IN 46307
PHONE 2197360463 FAX 2197550233 23 LY MWOY AW 6-29-69/16.36 23 LYMNOZAW 6-25-09/18:00 2314 MWO2BW 6-29-07/21:00 6-29-2009 PROJECT NUMBER: 110002 T 6200 PROJECT NAME: CAMP BONDED INCE CLIENT MICHAEL BAKER JE INC PRINT NAME WILL AM PELKEY ADDITIONAL REMARKS. SAMPLED BY: WILLIAM RELEASED BY. COICCI AN CLIENT SAMPLE IDENTIFICATION RELEASHD HY: COLLEGE B-261 PKINI VAME:

# TestAmerica Portland Sample Receiving Checklist

	rk Orc nt Na		and Project: Date/Time Received: Will Chaes	12/3	0/09 1710 Key
	Zone: OT/ES		□CDT/CST □MDT/MST □PDT/PST	□ak	□OTHER
Co	oler #( peratur	s):_ es:	Digi #2 IR Gun	Temp	erature out of Range:Not enough or No IceIce MeltedW/in 4 Hrs of collectionOther:
N/A	Yes	No			Initials: BUT
			1. If ESI client, were temp blanks received? If no, do	cument c	
			2. Cooler Seals intact? (N/A if hand delivered) if no,	documei	nt on NOD.
			3. Chain of Custody present? If no, document on NO	DD.	
			4. Bottles received intact? If no, document on NOD.		
			5. Sample is not multiphasic? If no, document on NO	DD.	
			6. Proper Container and preservatives used? If no, de	ocument	on NOD.
			7. pH of all samples checked and meet requirements?	If no, d	ocument on NOD.
			8. Cyanide samples checked for sulfides and meet red	quiremen	ts? If no, notify PM.
			9. HF Dilution required?		
			10. Sufficient volume provided for all analysis? If no PM before proceeding.		
;			11. Did chain of custody agree with samples received		document on NOD.
_			12. Is the "Sampled by" section of the COC completed		
			13. Were VOA/Oil Syringe samples without headspace		
			14. Were VOA vials preserved → HCl Sodium T		Ascorbic Acid
			15. Did samples require preservation with sodium thic		
			16. If yes to #14, was the residual chlorine test negati	ve? If no	, document on NOD.
Ò			17. Are dissolved/field filtered metals bottles sedimer	nt-free?	If no, document on NOD.
			18. Is sufficient volume provided for client requested no, document on NOD and contact PM before proceed 19. Are analyses with short holding times received in	ling.	O or matrix duplicates? If
			20. Was Standard Turn Around (TAT) requested?	noju;	
			21. Receipt date(s) < 48 hours past the collection date(	(s)? If no	o, notify PM.

## TestAmerica Portland Sample Receiving Checklist

Work Order #: <u>PSFO979</u>

Log	in Ch	eck	<b>::</b>	Initials: PS
N/A	Yes	No		
	otag		22. Sufficient volume provided for all analysis? If no, docum	ent on NOD & contact PM.
$\square$			23. Sufficient volume provided for client requested MS/MSE	or matrix duplicates? If
			no, document on NOD and contact PM.	
	Z		24. Did the chain of custody include "received by" and "relin	quished by" signatures,
			dates and times?	
Z			25. Were special log in instructions read and followed?	
,	Ø		26. Were tests logged checked against the COC?	
Ø			27. Were rush notices printed and delivered?	
$\mathbb{Z}$			28. Were short hold notices printed and delivered?	
	Ø		29. Were subcontract COCs printed?	
Ø			30. Was HF dilution logged?	
Lab	eling	and	Storage Checks:	Initials:
N-A	Yes	No		
	X		31. Were the subcontracted samples/containers put in Sx fridg	ge?
			32. Were sample bottles and COC double checked for dissolv	ed/filtered metals?
	X		33. Did the sample ID, Date, and Time from label match what	was logged?
X			34. Were Foreign sample stickers affixed to each container an	d containers stored in
			foreign fridge?	
Č			35. Were HF stickers affixed to each container, and containers	stored in Sx fridge?
Ď			36. Was an NOD for created for noted discrepancies and place	ed in folder?
Docur form (	nent ar	iy pro	oblems or discrepancies and the actions taken to resolve them of	n a Notice of Discrepancy



# LOT RECEIPT CHECKLIST TestAmerica West Sacramento

CLIENT_	NA	L-Portl	and	Nq	ULOG#_	59325
LOT# (QU/	ANTIMS I	D) GaGo	30156 QI	лоте# <u> </u>	15 LOCA	59325 TION W25 C
			_ TIME RECEIVED	·	Initials	
DELIVERE		☐ AIRBORNE ☐ UPS ☐ TAL COURIER ☐ OTHER	☐ CA OVERNIGHT ☐ GOLDENSTATE ☐ BAX GLOBAL ☐ VALLEY LOGISTIC	☐ DHI. ☐ GO-GET S ☐ MORGA	TERS	
CUSTODY	SEAL ST	ATUS ZINTACT	☐ BROKEN ☐ N	I/A 	-	
SHIPPPING	G CONTAI URE REC	INER(S) □TA ORD (IN °C) IR	5,264629 L ZCLIENT 40 5 Z 0 0	□ N/A  DTHER		
	TURE BLA	NK Obser	ved: O Corre			
SAMPLE TE			jeCorrecte	d Averege *9		
			ified from COC N	•		
pH MEASUI	RED	☐ YE	S ANOMAL	Y + N	I/A	
			NA			
SHORT HO	LD TEST	NOTIFICATION	WET	PLE RECEIVING CHEM DN ENCORESEN	/A	
☐ METALS	NOTIFIE	D OF FILTER/PRESE	RVE VIA VERBAL & E	MAIL DN	ÍΑ	
			GOOD CONDITION W ITAINERS, PRESERV		/A - 1/	
CLOUSE	AU	TEMPERAT	URE EXCEEDED (2 °C	C - 6 °C) 1 N	/A <u>Ψ</u>	
WET ICE		[] BLUE ICE	☐ GEL PACK ☐ NO	O COOLING AG	ENTS USED	☐ PM NOTIFIED
		and the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of t				

7 of 72

^{*1} Acceptable temperature range for State of Wisconsin samples is <4°C

# Worksheets

#### HOLDING TIMES

			Sacramento Lab			
SAMPLE DATE	SAMPLE ID	Portland LAB ID	IĐ	Matrix	Prep	Anal
06/29/09	23L4MW04AW	PSF0979-01	LF3H4	Aq	07/06/09	7/9 1X
06/29/09	23L4MW02AW	PSF0979-02	LF3H5	Aq	07/06/09	7/9 1X
06/29/09	23L4MW02BW	PSF0979-03	LF3H6	Aq	07/06/09	7/11 5X

7

days from collection to extraction

Sample Date

6/29/2009

Extract By

7/6/2009

40 Sample Date days fromextraction to analysis

7/6/2009 Extract By

,

7/13/2009

#### TARGET COMPOUNDS AND QUANTITATION LIMITS

Was a target compound list provided by the client? Did Sample Form 1s match the target compound list Were required quantitation limits provided by the client? Did all compounds meet the required quantitation limits? No NA

No NA

#### SYSTEM MONITORING COMPOUNDS

SAMPLE	SURROGATE	COLUMN I	DF	ACTION
All IN	•			

Were surrogate RTs within windows established by the ICAL? Were there any transcription errors between the raw data and Form 2? Were laboratory acceptance limits used as the basis for validation? Did the laboratory provide CLP Form II or equivlaent?

Yes No

30-150 Yes

02BW

		AMOUNT		
SURR	AMOUNT FOUND	SPIKED	% R	F1
34-DNT A	2.535	2.5	101.4	102
34-DNT C	2.952	2.5	118.1	

#### MS/MSD RECOVERY and RELATIVE PERCENT DIFFERENCE

#### None Present

#### LABORATORY CONTROL SAMPLES

SAMPLE	COMPOUND	LCS %R	LCSD %R	RPD	ACTION	1
LF3161A	4-a-26-DNTol	114	NA	NA		68-11
	HMX	116	NA	NA	7.7	67-11
	RDX	124	NA	NA		68-12
	135-TNTol	136	NA	NA	*	74-12
••••			NA	NA		7

Were laboratory acceptance limits used as the basis for validation?

Did the laboratory provide CLP Form III or equivlaent?

Yes Yes

Were chromatograms and quan reports present for all LCS/LCDs?

Yes

#### LF3161A

	AMOUNT FOUND	AMOUNT SPIKED	% R	FORM 3
LCS	1.14		114.0	114

%R = (Amount Found/Amount Spiked)*100

#### BLANKS

BLANK	COMPOUND	RESULT	5X OR 10X	ACTION LEVEL	ACTION
LF3161A	All Parameters	ND		#VALUE!	

NOTE

Equipment/Field blanks are not qualified on the basis of laboratory method blank contamination or contamination in other field quality control blanks.

CAL	IRR	ATI	ON

Initial					
	uan reports present for all ICAL standards?			Yes	
	alent present and complete?			Yes	
Any transcription or calcu				No	
What linearity criteria was				20% RSD or 0.99	
Were RT window docume	ented?			Yes	
Continuing					
	uan reports present for all CCV standards?			Yes	
	uivalent present and complete?			Yes	
Any transcription or calcu	lation errors?			No	
What %D criteria was use				25% D	
	dards been listed on an Analytical Sequence?			Yes	
Was a proper analytical se	equence followed?			Yes	
INITIAL CALIBRATIO	0N - A				
Date	6/10/2009	Rptd Avg CF	77.89163	Rptd %RSD	5,156
Instrument	Α	Calcd Avg CF	77.892	Cald %RSD	5.156
Compound	RDX	_			
Reported CF	80.13	CF1	81.80	STD DEV	4
Calculated CF	80.42	CF2	75.90		
	•	CF3	77.15		
Response	16084	CF4	80.72		
Conc	200	CF5	78.45		
Conc	***	CF6	80.13		
	CF = (H/C)	CF7	69.168	%RSD = (Std Dev/	/Ava (CF)*100
	Ci (inc)	CF8	79.815	ANOD — COM DEM	
CONTINUING CALIBR	ATION A	CIO	77.015		
Date	7/9/2009				
Гime	0035				
nstrument	A				
Compound	HMX				
Reported Conc	104.5	Rptd %D	5		
Calculated Conc	104.380	Cald %D	-4.38		
Response	12630	ICAL CF	100		
CF	121	CCV CF	104.4		
	CF = (HVC)	%Difference = ((IC	CAL - CCV)/ICA	AL)*100	
NITIAL CALIBRATION	N - C				
Date	6/9/2009	Rptd Avg CF	42.55812	Rptd %RSD	4.852
		. 5			
istrument	C	Calcd Avg CF	42,558	Cald %RSD	4.852
	C	Calcd Avg CF	42.558	Cald %RSD	4.852
ompound	C RDX	· ·			
ompound eported CF	C RDX 42.585	CFI	45.40	Cald %RSD STD DEV	4.852
ompound eported CF	C RDX	CF1 CF2	45.40 43.70		
Compound Reported CF Calculated CF	C RDX 42.585 42.78	CF1 CF2 CF3	45.40 43.70 42.75		
Compound Reported CF Calculated CF Response	C RDX 42.585 42.78 8556	CF1 CF2 CF3 CF4	45.40 43.70 42.75 43.30		
Compound Reported CF Calculated CF	C RDX 42.585 42.78	CF1 CF2 CF3 CF4 CF5	45.40 43.70 42.75 43.30 42.16		
Compound Reported CF Calculated CF Response	C RDX 42.585 42.78 8556 200	CF1 CF2 CF3 CF4 CF5 CF6	45.40 43.70 42.75 43.30 42.16 42.59	STD DEV	2
Compound Reported CF Calculated CF Response	C RDX 42.585 42.78 8556	CF1 CF2 CF3 CF4 CF5 CF6 CF7	45.40 43.70 42.75 43.30 42.16 42.59 38.118		2
ompound eported CF alculated CF Response Conc	C RDX 42.585 42.78 8556 200 CF = (H/C)	CF1 CF2 CF3 CF4 CF5 CF6	45.40 43.70 42.75 43.30 42.16 42.59	STD DEV	2
Compound Leported CF Calculated CF Response Conc	C RDX 42.585 42.78 8556 200 CF = (H/C)	CF1 CF2 CF3 CF4 CF5 CF6 CF7	45.40 43.70 42.75 43.30 42.16 42.59 38.118	STD DEV	2
Compound Exported CF Calculated CF Response Conc CONTINUING CALIBRA	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009	CF1 CF2 CF3 CF4 CF5 CF6 CF7	45.40 43.70 42.75 43.30 42.16 42.59 38.118	STD DEV	2
tompound eported CF alculated CF Response Conc  ONTINUING CALIBRA ate ime	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009 0554	CF1 CF2 CF3 CF4 CF5 CF6 CF7	45.40 43.70 42.75 43.30 42.16 42.59 38.118	STD DEV	2
Compound Leported CF Calculated CF Response Conc CONTINUING CALIBRA Cate inne	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009 0554 C	CF1 CF2 CF3 CF4 CF5 CF6 CF7	45.40 43.70 42.75 43.30 42.16 42.59 38.118	STD DEV	2
Compound Reported CF Calculated CF Response Conc CONTINUING CALIBRA Vate ime Instrument Compound	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009 0554 C HMX	CF1 CF2 CF3 CF4 CF5 CF6 CF7 CF8	45.40 43.70 42.75 43.30 42.16 42.59 38.118 42.452	STD DEV	2
Compound Reported CF Response Conc  CONTINUING CALIBRA Date Time Instrument Compound Reported Conc	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009 0554 C HMX 184.3	CF1 CF2 CF3 CF4 CF5 CF6 CF7 CF8	45.40 43.70 42.75 43.30 42.16 42.59 38.118 42.452	STD DEV	2
Compound Reported CF Calculated CF Response Conc  CONTINUING CALIBRA Date Time Instrument Compound Reported Conc	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009 0554 C HMX	CF1 CF2 CF3 CF4 CF5 CF6 CF7 CF8	45.40 43.70 42.75 43.30 42.16 42.59 38.118 42.452	STD DEV	2
Conc  CONTINUING CALIBRA  Date  Time Instrument Compound Reported Conc Calculated Conc	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009 0554 C HMX 184.3 184.280	CFI CF2 CF3 CF4 CF5 CF6 CF7 CF8	45.40 43.70 42.75 43.30 42.16 42.59 38.118 42.452	STD DEV	2
Compound Reported CF Calculated CF Response Conc  CONTINUING CALIBRA Date Time Instrument Compound Reported Conc	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009 0554 C HMX 184.3	CF1 CF2 CF3 CF4 CF5 CF6 CF7 CF8	45.40 43.70 42.75 43.30 42.16 42.59 38.118 42.452	STD DEV	2
Compound Reported CF Response Conc  CONTINUING CALIBRA Pate Time Instrument Compound Reported Conc alculated Conc Response	C RDX 42.585 42.78 8556 200 CF = (H/C) ATION C 7/11/2009 0554 C HMX 184.3 184.280 7594	CFI CF2 CF3 CF4 CF5 CF6 CF7 CF8  Rptd %D Cald %D	45.40 43.70 42.75 43.30 42.16 42.59 38.118 42.452 8 7.86	STD DEV  %RSD = (Std Dev/	2

FIELD DUPLICATES								
OMPOUND	SAMPLE	QUALIFIER	DUPLICATE	QUALIFIER	RPD			
PCA					#DIV/0!			
NOTES	Samples are not qualifi	ied on this basis.						
	COM	POUND IDENTIFICA	TION AND QUAN	TITATION				

Has a F10 been completed for every sample containing positive results? Yes NΑ Was RT data presented on the form? Are RTs within the established winodws? Yes Any transcription or calculation errors? No Any false positives, negative peaks, shouldering, etc.? No Was GCMS confirmation needed for results > 10 µg/ml? NΑ Were percent differences or relative percent differences calculated? NA Are percent differences/RPDs greater than 25%? NA Are there any transcription errors? No Are Form1s present for all field and quality control samples? No Are chromatograms and quan reports present for all samples? Yes Are RLs adjusted to reflect sample dilutions, percent solids, etc.? Yes For soils, any precent solids <50%? No For soils, any precent solids <10%? No

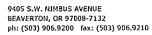
#### 23L4MW02BW RDX 84 μg/L

	Α	C
response	65192	31840
cf	77.89163	42.55812
final vol ml	20	20
initial L	1,0053	1.0053
df	5	5
calculated	83.2545	74.4209

#### PERCENT DIFFERENCE BETWEEN COLUMNS

SAMPLE	COMPOUND	A	C	RPD	QUALIFIER
23L4MW04AW	RDX	2.814	2.589	8.3	none
23L4MW02AW	HMX	3.825	3.335	13.7	none
	RDX	19.19	17.52	9.1	none
23L4MW02BW	24-DNT	0.3578	0.4359	-19.7	none
	HMX	4.265	3.572	17.7	none
	RDX	83.25	74.42	11.2	none





<u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

Michael Baker Jr., Inc.

5261 Fountain Drive, Suite A Crown Point, IN 46307 Project Name:

Camp Bonneville Groundwater

Project Number: Project Manager: 110002 Task 6200

James D. Peyton

Report Created: 07/21/09 08:55

#### SW846 8330

TestAmerica West Sacramento

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSF0979-01 (23L4MW04	AW)		W	ater		Samp	oled: 06/29/	09 16:30		
1,3,5-Trinitrobenzene	SW846 8330	ND	0.031	0.099	ug/L	0.99x	9187206	07/06/09 09:30	07/09/09 03:06	
1,3-Dinitrobenzene	n	ND	0.05	0.099	•	v	•	11	45	
2,4,6-Trinitrotoluene	•	ND	0.024	0.099		u	u u	•	u	
2,4-Dinitrotoluene	•	ND	0.05	, 0.099	ч	n	и	•	v	
2,6-Dinitrotoluene	n	ND	0.05	0.099	14	P			w	
2-Amino-4,6-dinitrotoluene	9	ND	0.099	0 2	4	18	9	ਜ਼	19	
2-Nitrotoluene	ų	ND	0.071	0.4	٩	v	в	18	10	
3-Nitrotoluene	v	NĐ	0.061	0.4	**	0	p	u	a	
4-Amino-2,6-dinitrotoluene	н	ND	0.022	0.099	14	P	v	ab .	15	
4-Nitrotoluene	п	ND	0.071	0.5	n	н	0	17	п	
НМХ	U	ND	0.027	0,099	v	11	32	9	n	
Nitrobenzene	H	ND	0.05	0.099	**		п	•	v	
Nitroglycerin	D	ND	0.15	0.64	u	R)	а	н	H	
PETN	9	ND	0.23	0.64		11		3	11	
Picric Acid	47	ND	0.12	0.99	4	9	,	a	ч	
RDX	u	2.8	0.064	0.099			a	e	rr .	
Tetryl	0	ND	0.05	0.099	•	P		и	N	
Surrogate(s): 3.4.Dinitrotai				99%		79 - 111 %				 "

Surrogate(s): 3,4-Dinitrotoluene

99%

79 - 111 %

PSF0979-02 (23L4MW02	2AW)		Wa	iter		Sam	pled: 06/29/	09 18:00	
1,3,5-Trinitrobenzene	SW846 8330	ND	0.031	0.1	ug/L	Ix	9187206	07/06/09 09:30	07/09/09 03:57
1,3-Dinitrobenzene	β	ND	0.05	1.0		şî			the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the sa
2,4,6-Trinitrotoluene	n	ND	0.024	0.1	8	D	P	**	и
,4-Dinitrotoluene	n	ND	0.05	0.1	к	я	а	4	u
,6-Dinitrotoluene	)ı	ND	0.05	0.1	и	ė	đ	п	U
-Amino-4,6-dinitrotoluene	U	ND	0.1	0.2	11	**	P	M	tt.
-Nitrotoluene	u	ND	0.072	0.4	u	10	π	9	ti.
-Nitrotoluene	n	ND	0.062	0.4	P	4	σ	u	a
-Amino-2,6-dinitrotoluene	W	ND	0.022	0.1		*	"	*	v
Nitrotoluene	9	ND	0.072	0.5	u	и	п	fr	n
MX	v	3.8	0.027	0.1	9	P	n	16	ur.
litrobenzene	n	ND	0.05	0.1	at .	4	44	0	u
litroglycerin	и	ND	0.15	0.65	•		ч	ė	•
ETN	n	ND	0.23	0.65	4	tr	u	tr	τ
erie Acid	o	ND	0.12	1	u	11	tř.	νi	fo .
ĐΧ	и	19	0.065	0.1	"	"	v	4	3)

TestAmerica Portland

Estella K'Rieben

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

Estella Rieben, Project Manager



THE LEADER IN ENVIRONMENTAL TESTING

Michael Baker Jr., Inc.

Crown Point, IN 46307

5261 Fountain Drive, Suite A

PORTLAND, OR

9405 S.W. NIMBUS AVENUE BEAVERTON, OR 97008-7132 ph: (503) 906.9200 fax: (503) 906.9210

Camp Bonneville Groundwater Project Name:

Project Number: 110002 Task 6200

Project Manager: James D. Peyton Report Created:

07/21/09 08:55

#### SW846 8330

TestAmerica West Sacramento

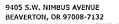
PSF0979-02 (23L4MW02AV Tetryl Surrogate(s): 3,4-Dinitrotolue PSF0979-03 (23L4MW02BV 1,3,5-Trinitrobenzene	SW846 8330  ene  V)	ND	0.05	0.1 	ug/l.	Samp tx	led: 06/29/ 9187206	09 18:00	07/09/09 03:57	
Surrogate(s): 3,4-Dinitrotoluc PSF0979-03 (231.4MW02BV	ene V)	ND	0.05		ug/l.	lx	9187206	07/06/09 09:30	07/00/00 03-57	
PSF0979-03 (231.4MW02BV	V)		***	102%				57100/07 07.30	17,000 (0)(0)	
	<u> </u>					79 - 111 %	. "	-	···	y
1,3,5-Trinitrobenzene			W	iter		Samp	led: 06/29/	09 21:00		
	SW846 8330	ND	0.16	0.5	ug/L	5x	9187206	07/06/09 09.30	07/11/09 06:11	
1,3-Dinitrobenzene	u	ND	0.25	0.5	ч	4	**	tr	Children Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of t	
2,4,6-Trinitrotoluene	Ú	ND	0.12	0.5	4	п	10	9	B.	
2,4-Dinitrotoluene	w	0.36	0.25	0.5	4	11	"	9	n,	J
2,6-Dinitrotoluene	if	ND	0.25	0.5	N .	4	•	u	в	
2-Amino-4,6-dinitrotoluene	*	ND	0.5	1	я	e	P	n	u	
2-Nitrotoluene	ч	ND	0.36	2	18	tr .	T	**	n	
3-Nitrotoluene	n	ND	0.31	2	şi	ч	я	v	n	
4-Amino-2,6-dinitrotoluene	rt	ND	0.11	0.5		v	0	a	tr	
4-Nitrotoluene	v	ND	0.36	2.5	tr	D	R	P	u	
IIMX	v	4.3	0.14	0.5		gr	tr		ij	
Nitrobenzene	o.	ND	0.25	0.5		b		ч		
Nitroglycerin	o.	ND	0.75	3.2	•	39	•	si	ŧţ	
PETN	п	ND	1.2	3.2	н		P	ь	u	
Pierie Aeid	et .	ND	0.62	5	•	ır	v	u	n	
RDX	N	84	0.32	0.5	P	11	а	10	n	
Tetryl	a	ND	0.25	0.5	и		b		17	

TestAmerica Portland

Estella Rieben, Project Manager

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ph: (503) 906.9200 fax: (503) 906.9210



Michael Baker Jr., Inc.

Project Name:

Camp Bonneville Groundwater

5261 Fountain Drive, Suite A

Project Number:

110002 Task 6200

Report Created:

Crown Point, IN 46307

Project Manager:

James D. Peyton

07/21/09 08:55

#### SW846 8330 - Laboratory Quality Control Results

			TestA	merica W	est Sacran	iento								
QC Batch: 9187206	WATE	R Preparatio	n Method:	NA										
Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (G9G060000206B)			·	QC Source	:			Ext	racted:	07/06/09 09	:30			
1,3,5-Trinitrobenzene	SW846 8330	ND	0.031	0.1	ug/L	1x			•-			(	17/09/09 01:25	
1,3-Dinitrobenzene	**	ND	0.05	0.1	v	10							9	
2,4,6-Trinitrotoluene	•*	ND	0.024	0.1		19								
2,4-Dinitrotoluene	19	ND	0.05	0.1	l*	v							0	
2,6-Dinitrotoluene	11	ND	0.05	0.1	я	ır								
2-Amino-4,6-dinitrotoluene		ND	0.1	0.2	0	и								
2-Nîtrotoluene	н	ND	0.072	0.4	"	19							10	
3-Nitrotoluene	11	ND	0.062	0.4	P	п							9	
4-Amino-2,6-dinitrotoluene		ИD	0.022	1,0	10	*							v	
4-Nitrotoluene		ND	0 072	0.5	•	17							u	
нмх	. н	ND	. 0.027	0.1	•	9							ū	
Nitrobenzene	19	ND	0.05	0. I	17	•							9	
Nitroglycerin	u	ND	0.15	0.65	v								u	
PETN	ч	ND	0.23	0.65	0	н							ч	
Pierie Aeid		ND	0.12	I		4							u	
RDX	a	ND	0.065	0.1	10	n							u	
Tetryl	ır	ND	0.05	0.1	п	п							e	
Surrogate(s): 3,4-Dinitrotoluene		Recovery	10296	Lin	nits: 79-1119	· "							07 09 09 01:25	
LCS (G9G060000206C)				QC Source:				Extr	acted:	07/06/09 09:	30			
1,3,5-Trinitrobenzene	SW846 8330	1.36	0.031	0.1	ug/L	lx		1	136%	(74-120)		0	7/09/09 02:16	
1,3-Dinitrobenzene		1.23	0.05	0.1	"	P		u	123%	(72-123)			n	
2,4,6-Trinitrotoluene	**	1.13	0 024	0.1				•	111%	(69-111)			•	
2,4-Dinitrotoluene	et .	1.18	0.05	0.1	,,			12	118%	(70-119)			n	
2,6-Dînitrotoluene	a	1.19	0.05	1.0	ii	a		9	119%	(71-119)			19	
2-Amino-4,6-dinitrotoluene	9	1.22	1.0	0.2	11			D	122%	(77-123)			u	
2-Nitrotoluene	"	1.09	0.072	0.5	v	**		n	109%	(64-120)			4	
3-Nitrotofuene	ts	1.11	0.062	0.5	ır	ø		u	111%	(67-[14)			n	
4-Amino-2,6-dinitrotoluene		114	0.022	0.1	11	a		a	114%	(68-113)			n	
4-Nitrotoluene	ь	1.12	0.072	0.5	a	P		•	112%	(67-115)			U	•
HMX	rr ·	1.16	0.027	0.1	•	or or		"	116%	"				a

TestAmerica Portland

Nitrobenzene

Nitroglycerin

Pierie Acid

PETN

RDX

Tetryl

Surrogate(s): 3,4-Dinitrotoluene

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

102%

105%

66%

124%

99%

(85-115)

(84-117)

(21-118)

(68-122)

(66-105)

Estella Rieben, Project Manager

0.65

0.65

1

0.1

0.1

Limits: 79-111%

0.05 0.15

0.23

0.12

0.065

0.05

5.1

5.24

3.29

1 24

0.986

Recovery: 101%

07-09 09 02:16

#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### HPLC

Client Lot #...: G9G030156 Work Order #...: LF3161AC Matrix..... WATER

LCS Lot-Sample#: G9G060000-206

Prep Date....: 07/06/09 Analysis Date..: 07/09/09

Prep Batch #...: 9187206

Dilution Factor: 1

	PERCENT	RECOVERY	
PARAMETER	RECOVERY	LIMITS	METHOD
Nitroglycerin	102	(85 - 115)	SW846 8330
PETN	3.05	(84 - 117)	SW846 8330
Picric Acid	66	(21 - 118)	SW846 8330
2-Amino-4,6-	1.22	(77 - 123)	SW846 8330
dinitrotoluene	and the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th		
1-Amino-2,6-	(111 a )	(68 - 113)	SW846 8330
dinitrotoluene	The same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the sa		
1,3-Dinitrobenzene	123	(72 - 123)	SW846 8330
2,4-Dinitrotoluene	1.13	(70 - 119)	SW846 8330
2,6-Dinitrotoluene	119	(71 - 119)	SW846 8330
HMX	1.116 a	(67 - 115)	SW846 8330
Nitrobenzene	112	(69 - 119)	SW846 8330
2-Nitrotoluene	1.09	(64 - 120)	SW846 8330
3-Nitrotoluene	J.1 I.	(67 - 114)	SW846 8330
-Nitrotoluene	11.2	<b>(67 - 115)</b>	SW846 8330
XDX	(124 a)	(68 - 122)	SW846 8330
retryl	99	(66 - 105)	SW846 8330
1,3,5-Trinitrobenzene	(136°a)	(74 - 120)	SW846 8330
2,4,6-Trinitrotoluene	1.1.1.	(69 - 111)	SW846 8330
		PERCENT	RECOVERY
URROGATE		RECOVERY	LIMITS
,4-Dinitrotoluene		101	(79 - 111)

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

#### LABORATORY CONTROL SAMPLE DATA REPORT

#### **HPLC**

Client Lot #...: G9G030156 Work Order #...: LF3161AC Matrix...... WATER

LCS Lot-Sample#: G9G060000-206

Prep Date....: 07/06/09 Analysis Date..: 07/09/09

Prep Batch #...: 9187206

Dilution Factor: 1

	SPIKE	MEASURED		PERCENT	
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	Method
Nitroglycerin	5.00	5.10	ug/L	102	SW846 8330
PRTN	5.00	5.24	ug/L	105	SW846 8330
Picric Acid	5.00	3,29	ug/L	66	SW846 8330
2-Amino-4,6-	1.00	1.22	ug/L	122	SW846 8330
dinitrotoluene					
4-Amino-2,6-	1.00	1.14 a	ug/L	114	SW846 8330
dinitrotoluene					
1,3-Dinitrobenzene	1.00	1.23	ug/L	123	SW846 8330
2,4-Dinitrotoluene	1.00	1.18	ug/L	118	SW846 8330
2,6-Dinitrotoluene	1.00	1.19	սց/L	119	SW846 B330
них	1.00	1.16 a	ug/L	116	SW846 8330
Nitrobenzene	1.00	1.19	ug/L	119	SW846 8330
2-Nitrotoluene	1.00	1.09	ug/L	1.09	SW846 8330
3-Nitrotoluene	1.00	1.11	ug/L	111	SW846 8330
4-Nitrotoluene	1.00	1.12	ug/L	112	SW846 8330
RDX	1.00	1.24 a	ug/L	124	SW846 8330
Tetryl	1.00	0.986	ug/L	99	SW846 8330
1,3,5-Trinitrobenzene	1.00	1,36 a	ug/L	136	SW846 8330
2,4,6-Trinitrotoluene	1.00	1,11	ug/L	111	SW846 8330
		PERCENT	RECOVERY		
SURROGATE		RECOVERY	LIMITS		
3,4-Dinitrotoluene		101	(79 - 111)		

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

a Spiked analyte recovery is omside stated control limits.

#### METHOD BLANK REPORT

#### HPLC

Client Lot #...: G9G030156 Work Order #...: LF3161AA Matrix..... WATER

MB Lot-Sample #: G9G060000-206

Prep Date....: 07/06/09

Analysis Date..: 07/09/09 Prep Batch #...: 9187206

Dilution Factor: 1

		REPORTI	AG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Nitroglycerin	ND	0.65	ug/L	SW846 8330
PETN	ND	0.65	ug/L	SW846 8330
Picric Acid	ND	1.0	ug/L	SW846 8330
2-Amino-4,6-	ND	0.20	ug/L	SW846 8330
dinitrotoluene				
4-Amino-2,6-	ND	0.10	ug/L	SW846 8330
dinitrotoluene				
1,3-Dinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
2,6-Dinitrotoluene	ND	0.10	ug/L	SW846 8330
HMX	ND	0.10	ug/L	SW846 8330
Nitrobenzene	ND	0.10	ug/L	SW846 8330
2-Nitrotoluene	ND	0.40	ug/L	SW846 8330
3-Nitrotoluene	ND	0.40	ug/L	SW846 8330
4-Nitrotoluene	ND	0.50	ug/L	SW846 8330
RDX	ND	0.10	ug/L	SW846 8330
Tetryl	ND	0.10	ug/L	SW846 8330
1,3,5-Trinitrobenzene	ND	0.10	ug/L	SW846 8330
2,4,6-Trinitrotoluene	ND	0.10	ug/L	SW846 8330
	PERCENT	RECOVERY	•	
SURROGATE	RECOVERY	LIMITS		
3,4-Dinitrotoluene	102	(79 - 11	J)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

OA-413 EM 3/17/05

TestAmerica West Sacramento ESC-Extraction Waster Sheet

Auto track

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7/06/09 COMMENTS:	7/15/09	G9G03C156-001 LF3H4-1-AC	ρή	87	AO	WATER	1007.3mL 20.00mL	Ŕ	NA	NA	HOAN/ACM	4.5 HOAC/ACN	ω	50UL-09GCSV172	
7/06/09 COMMENTS:	7/15/09	G9G030156-002 LF3H5-1-AC	ρź	87	A0	WATER	996.15mL 20.00mL	2	Ą	ğ	HOAN/ACN	4.5 HOAC/ACN	φ.	50UL-09GCSV172	
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7/06/09 COMMENTS:	00/00/00	G9G060000-206 LF316-1-AAB		B 7	0	सञ्चास	1000mL 20.00mL	ē.	Š.	K	HOAN/AGN	4.5 HOAC/ACN	io in	50UL-09GCSV172	
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## TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 06102009

Method : Method 8330 Test : SOP SAC-LC-0009

ICAL Date: See Calibration Report

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10-JUN-2	2009   18:05	<b>Ehk</b>	STD_4 09GCSV0051	50/100/50/50n	[A-00000	5.	0 g	Į	Q mi,	1	1	1
10-JUN-2	2009   18:56	£hk	STD_5 03GCSV0053	100/200/100/1	A-00000	6.	0 g	1	0 mL	1	2	l
10-JDN-2	009   19:46	fhk	STD_6 09GCSV0054	200/500/200/2	A-000001	7.	0 g	ı	Jo O	Ì	1	İ
10-JUN-2	009   20:37	fhk .	STD_7 096CSC0055	500/1000/500/	A-000006	3.	0 g	ı	Jm O	į	1	l
10-JUN-2	009   21:28	fhk	STD_8 09GCSV0056	1000/2000/100	A-00000	∍.	0 g	1	0 mL	1	ı	
10-JUN-2	009   22:18	[fhk	Blank		A-000010	۱.(	0 g	1	Jm G	ł	1	I
10-JUN-2	009   23:09	[£hk	ICV_6 03GCSV0397	100/200/100/1	A-000011	ι.	0 g	I	0 ml,	ı	ì	<u></u>
11-JUN-2	009   00:00	fnk	STD_S 09GCSV00E3	100/200/100/1	A-000012	}. [	0 g	1	0 m.	1	1	
11-JUN-2	009   00:50	fnk	Surrogate 100ng/m	ı,	A-000013	. [	0 g	ŧ	Ø ml,	ĺ	1	1
11-JUN-2	009   12:56	£bk	Primer		A-000014	L. (	0 g	1	Q mL	1	1	I
11-JUN-2	009   13:47	fhk	STD_3 03GCSV0050	20/50/20/20ng	A-000015	. j	0 g	i	Q mL	1	2	vering ected NOW Sto

Jon 6/11/09

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

```
Start Cal Date
                : 10-JUN-2009 15:33
End Cal Date
                : 11-JUN-2009 13:47
                : ESTD
Quant Method
                : Disabled
Origin
                : 4.14
Target Version
                : Falcon
Integrator
                : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Method file
                : 11-Jun-2009 15:06 kenneyf
Last Edit
Curve Type
                : Average
Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000002.d
          \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d
Level 2:
         \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d
Level 3:
         \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d
Level 4:
         \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d
Level 5:
         \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d
Level 6:
         \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d
Level 7:
Level 8: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d
                      | 5.000 | 10.000 | 20.000 | 50.000 | 100.000 | 200.000 |
                      Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |
                                                              RRF
                                                                    * RSD
  Compound
                      1
ŧ
                      | 500 000 |1000 000 |
1
```

	Level 7	Level 2	İ	1	į	i	í	ł	Ĺ
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•	•				=======			. ]
2 HMX	1119	120	115	125	123	124	i	j	Ì
	) 116	123	1 '	<b>'</b>	<b>/</b>	1 '	T 121	3.066	1
	-	1	1					<b>}</b>	}
3 RDX	•	75.90000	•	80 72000	18 45000	80 13000	_		ł
•	69 16800	79.81500	1	j ,	,	} '	77.89163	5.156	1
4 EGDN	++++4	+++++	+++++	)   +++++	1 +++++	1 +++++	}	*	1
3 6001	++++	+++++	}	, ,., . I		1	+++++	f   +++++	  <
		 	[	,  -,/		, 			1
5 Pieric ACID	4+++4	++++	91.72000	85.68000	84.85500	84.88200	]	İ	j
	74.63400	74.87800	_	·	1	1	82 77483	8.120	1
	-1	f	[						1
6 1,3,5-Trinitrobenzene	1 :.61	•		150	147	148		ļ	1
	] :.36	147			}		148	4,610	]
	-	1 345	138		139	142			1
7 1,3-Dinatrobenzene	1 :.45	•	'	142	1 139	1 142	   140	3 715	l t
		l	; !		1 }	: }	#40} 	, ,	1 1
8 3,5-Dinitroaniline	1 97.20000	90.80000	   89 35000	91 80000	88.83000	90.35000	, ,   .	!	1
0 0/0 0111111111111	•	89.25000					89.97350	4.581	1
			- y		• • • • • -	 		******	, 
9 TETRYL	97,60000	95.10000	177.40000	/96 02000	94.31000	95.06000	, i		ſ
	92,43000	94.40900	ĺ	ч	<b>(</b> 1		92 79113	6.888	Ī
******	-	[]							١
	1	1 !				i I		4	ı

Page 2

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33

End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD : Disabled Origin Target Version : 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

	5.000	10 000	20.000	J 50.000	1 100.000	1 200.000	· —	វ
Compound	•	Level 2	· ·	Level 4	Level 5	Level 6	RRF	[ % RSD I
	1	1000.000	]	]	1	]	! 	1
	•	Level 8	•	1	ļ	<u>}</u>	j	) 
	•	•	•	•	•	62.26000		,=====================================
	\$6.02600	61.95700	İ	1	1	}	60.67412	j 46
11 Nitroglycerin	{   +++++	+++++	+++++	+++++	+++++	+++++		/
	*****	+++++	İ	[	1	1	+++++	++++
12 2,4,6-Trinitrotoluene	]   94.80000	90.20000	81.90000	   83.72000	87.04000	87 55500		) • • • • • • • • • • • • • • • • • • •
	84.72200	87.17800	Ì	ĺ	İ	1	87.70937	4.4
13 4-AM-2, 6-DNT	   67.00000	63.30000	60.85000	63.26000	V61.61000	62.67000		
	•	61.14600			ĺ		62 31125	3 90
14 2-AM-4,6-DNT	74.80000	]   75.80000	73,10000	75 54000	73 53000	74.39000		
•		72.13500	•				73.55987	2 93
15 2,6-Danitrotoluene		•	   51.90000	'	   53.03000	53,21500		
	•	52 74900	•		}	1	53.23800	3.83
16 2,4-Dinitrotoluene	•	86.50000		86.20000	84.72000	85.49000		
!	81.43200	85.05700	<u> </u>			<u> </u>	85.62488	4.03
17 2-ฟาtrotoluene	40.80000	37,40000	   33.20000	35.64000	35.21000	35.77500		
•		35 45000			. j	1	35,93113	6 48
18 4-Nitrotoluene		,	40.75000	,		43.56500	 	
į	41.67600	43 21300		1	!	1	43.79800	5 39
19 3-Nitrotoluene	47.00000.	44.60000	/39 85000)	43.24000)	/42 93000	 _43 08000[		
	,	42 82400]	•	1	1	/	43.13000	4.85
20 PETN	+++++	4~+++		+ ( + + + + )	+++++	++++		
}	*****	f == + + +	į	ļ	Ì	į	+++++ }	++++

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 15:33

End Cal Date : 11-JUN-2009 13:47 Quant Method : ESTD Origin : Disabled Target Version : 4.14
Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M
Last Edit : 11-Jun-2009 15:06 kenneyf
Curve Type : Average

   Compound	Level 1	Level 2	20.000   Level 3	Level 4	Level 5	Level 6		RSD
 	500.000 Level 7	  1000.000   Level 8	}	 		,   	)   	
\$ 1 3,4-Dinitrotoluene	++++	•	46.40000		•	•	•	unnument
	 	Í Í	 		    		 	

Report Date: 12-Jun-2009 16:04 Page 1

#### MestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 : 11-JUN-2009 13:47 End Cal Date Quant Method : ESTD : Disabled Origin Target Version : 4.14 : Falcon Integrator : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83 Method file Last Edit : 11-Jun-2009 15:14 kenneyf : Average Curve Type Calibration File Names: Level 2: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000003.d\A-Level 3: \Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000015.d\A-Level 4: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000005.d\A-Level 5: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000006.d\A-Level 6: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000007.d\A-Level 7: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000008.d\A-Level 8: \\Terastation\share\GCdata\GCdata\LC10.I\06102009.B\A-000009.d\A-

		•			500.000	· ——	
:	Level 3	Level 4		1 '	Level 7	RRF	RSD
				]		1	1
Level 8	}	1	[	!	!	1	1
+++++	+++++	} ++++-	+++++	+++++	+++++		
+++++	<b>1</b>	1	1		1	++++	+++++
+++++	+++++	+++++	+++++	+++++	+++-+	1	
+++++	<b>[</b>	}	1	1	l !	+++++	+++++
+++++	   +++++	*****	+++++	+++++	+++++		1
+++++	J ['	 	<b> </b> 	j !	 	+++++ 	+++++ 
++++	134	126	1.25	125	110		
110	j   !	[ [	) !====================================		j 1	122	8.08
+++++	+++++	+++++	+++ <b>-</b> +	+++++	<u> </u>	!! !	, [
+++++		: []	 	 	1	+++++   	} +++++ 
+++++	+++++	+++++	++++	+++++	   +++++		 
+++++	<b> </b> 	 		 		+++++   	++++
+++++	*++++ }	+++++ <b> </b>	1++-+	+++++ }	+++++		, 
+++++ ]			1			44+++   	++++
+++++	+++++ }	++++	+++++ j	+++++	+++++		
+++++	1	!	!	1	!	+++++	+++++
	Level 8	1000.000     Level 8	1000.000	1000.000	1000.000	1000.000	1000.000   Level 8

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23

End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled Target Version : 4.14

Integrator : Falcon
Method file : \\Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf
Curve Type : Average

	10.000	20.000	50.000	•	200.000	:		}
Compound	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	RSD
	1000.000	}	} 		1		· ]	<b>!</b>
,	Level 8	ŗ		1	İ	i	İ	i
	======		======= :	====================================	:	:	========	
10 Nitrobenzene	+++++   +++++	{ +++++ {	+++++	} +++++ }	} +++++ !	} +++++	1 ++++	   +++++
						}		ļ <b></b>
11 Nitroglycerin	) +++++	•	59.82000	60 58000	61.86500	59 75400	•	1
	61.73900	] ]	****	 	 	 	60 83467	1.52 
12 2,4,6-Trinitrotoluene	,   +++++	++++	+++++	+++++	{ +++++	1 +++++	İ	}
	++++	1			1	}	+++++	+++++
13 4-AM-2,6-DNT	+++++	++++	+++++		1 +++++	+++++		 
	,   ++++	[				I	+++++	+++++
	ļ	 				[		
14 2-AM-4,6-DNT	+++++	+++++   	+++++	+++++	+++++ 	++++ 	} ! +++++	+++++
· · · · · · · · · · · · · · · · · · ·					, 	, 	j	
15 2,6-Dinitrotoluene	+++++	+++++	+++	<b>&gt;+++</b>	+++++	+++++	<b>)</b>	
	_ +++++ 	 			 	 	+++++   	+++++
16 2,4-Dinitrotoluene	++++	+++++	+++++ }	<b>}</b> +++++	+++++	+++++	j	
	++++	}	!	!		ļ	+++++	++++
17 2-Nitrotoluene	++-++	+++>+	+++++	······	+++++	++++	 	
	++++			į	İ		·   ++++	+++++
						• • • • • • • • • • • • • • • • • • • •	[]	
18 4-Nitrotoluene	+++++	+++++	+++++	··++++	+++++ {	++++	   +++++	+++++
		·		1				
19 3-Nitrotoluene	+++++	+++++	+++++	*++*+	++++	++++	}	
ļ	+++++	[					+++++	+++++
20 PETN	+++++	32.650001	30.36000{	31 910001	32 25000	32.38000	 	
'	32.75200	i	1	,			32 05033	2.74
•	•		•	•	•			

Page 3 Report Date : 12-Jun-2009 16:04

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 10-JUN-2009 16:23 End Cal Date : 11-JUN-2009 13:47
Quant Method : ESTD
Origin : Disabled

: Disabled Origin Target Version: 4.14

Integrator : Falcon
Method file : \Terastation\share\GCdata\LC10.I\06102009.B\8330AB.M\83
Last Edit : 11-Jun-2009 15:14 kenneyf

Curve Type : Average

	10.000	20.000	50.000	100 000	200.000	500.000		
Compound	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	RRF	% RSD
	'		]					
	[1000.000 ]	į		†	[			
	Level 8	; •	 	 	·	) 1	 	
1 3,4-Dinitrotoluene	+++++	,		•	•	•		3555557
1 3, 4 Billiolocoldene	93.1.4200						89.85478	2.1
	1 1		i	ł i		gustr'in	·1	

TestAmerica West Sacramento

A-000011.D

Chromatography Summary

Injection Date:

6/10/2009 23.09

Operators thk

DafaFile:

LC10.1\05102009 B\A-000011.D

Vial Num: 20

Method 8330 Target Analyte Results

Instrument ID:

LC10

Sample:

ICV_6 08GCSV0397 100/200/100/100ng/mL Method File:

LC10.1\05102009.B\8330AB.M

Start Cal Date:

Difution Factor

ıχ

6/10/2009 15:33 Extract Volume

 $0\,m$ L

End Cal Date: 6/11/2009 13:47 Sample Volume Sampic Weight

SubList: CALsub Matrix: NONE ICV_603GC\$V0397100/200/100/100ng/inL-2 Samp. Info:

SpikeLists

0 g 0 mL

Mise. Info:

(6) ; ; ;3;CAL sub; ;0;1

			Signal I U	IV 25 <b>0-</b> 2	65		*·		-		Signal 2 UV	/ 358-205	·~	.,		-	
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Res	ponse	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene				200	-100%	e Pails	No	rin.	Wis-			200	-100%	Fails		(±15)	
нмх	5.29	26153	216.4000<	200	8%	Acceptable	-	•				200	-100%	Fails		(±15)	45
RDX	7.84	16084	206,5000<	200	3%	Acceptable						,200	-100%	Fails		(±15)	45
Picrie ACID	9.00	41754	504.4000	🖋 500	1%	Acceptable		9 00		61509	505.5000<	500	1%	Acceptable		(±15)	
1,3,5-Trinitrobenzene	10.20	29097	197,1000<	200	-1%	Acceptable						200	-100%	Fails		(±15)	45
1,3-Dinitrobenzena	13,25	27834	199,2000<	200	0%	Acceptable						200	-100%	Fails		(±15)	45
TETRYI.	14.30	17776	191 6000<	200	-4%	Acceptable						200	-100%	Falls		(±15)	45
Nitrobenzene	15.16	12143	200.1000<	200	0%	Acceptable						200	-100%	Fails		(±15)	45
2,4,6-Trinttrotolucne	16 53	1735.2	197.8000<	200	-1%	Acceptable						200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17.51	11969	192.1000<	<b>/</b> 200	4%	Acceptable						200	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.57	13851	188 3000<	200	-6%	Acceptable						200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.28	10445	196.2000<	200	-2%	Acceptable						200	-100%	Fails		(±15)	45
2,4-Dimirotolucos	21.00	16653	194.5000<	200	-3%	Acceptable						200	-100%	Fails		(±15)	45
2-Nitrotolcens	24.68	7069	1967000<	200	-2%	Acceptable						200	-100%	Fails		(±15)	45
4-Nitrotoluene	26.50	8526	194.7000<	. 200	-3%	Acceptable						200	-100%	Fails		(±15)	45
3-Nitrotofueno	28,49	8451	195 9000<	200	-2%	Acceptable						200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		1578		12548	206 3000<	200	3%	Acceptable		(±15)	45
PETN					-100%	Fails		30.10		5830	181 9000<	<b>1</b> 200	-9%	Acceptable		(±15)	45
3,5-Dinitroaniline	13.99	18460	205.2000<	200	3%	Acceptable							-100%	Fails		(±15)	45
EGDN					-100%	Pails							100%	Fails		(±15)	

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result O = Over Calibration Rango

Signals Differ by More Than 50%

Printed: 6/11/2009 3:26 PM

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC10

Batch ID: 07082009

Method: Method 8330

Test : SOP SAC-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample	ĭD	File TO	Vol or	Extract	Diln	Comments
	1	1	1		1	Wt	Vol	İ	1
=======================================	*****	#=====================================	.======================================		<b>55</b> 5555555		*******	*****	.==========
08-JUL-2009	16.09	fhk	Primer		A-00000t.	0 g	0 mL	[ 1	1
08-JUL-2009	16:59	fhk	Primer		F000007.	0 g	Jm O	1	1
08-JUL-2009	17:50	fhk	STD_6 09GCSV0054	.4K/.2/.2/.2/	A-000003	0 g	O mL	1	<u></u>
08-JUL-2009	18 • 41	fhk	LF1EN1AA 9183251	G9G020000-251	A-000001.	1000 mL	20 mL	1	l
08-JUL-2009	19.31	fhk	LF1EN1AC 9183251	G9G020000-251	A-000005.	1000 mL	20 mL	<b>j</b> 1	l
08-JUL-2009	20:22	fhk	LFXXW1AC 9183251	G9G010225-1 1	A-000006.	1021.57 mL	20 mL	1	l
08-JUL-2009	21:12	fhk	LFXX61AC 9183251	G9G010225-2 1	A-000007.	3022.4 Մե	20 mL	1	}
08-JUL-2009	22:03	<b>  fhk</b>	LFX111AC 9183251	G9G010225-3 1	A-000003.	1024.15 mL	20 mL	1	1
08-JUL-2009	22.53	fink	LFX121AC 9183251	G9G010225-4 1	A-000003.	1019.2 mL	20 mL	1	
08-JUL-2009	23:44	fhk	LFX151AC 9183251	G9G010225-5 1	A-000017.	1021.92 mL	20 mL	1	1
09-JUL-2009	00:35	fhk L	sro_s oeccevooss	.2K/.1/ 1/ 1/	A-00001	0 g	0 mL	1	l
09-JUL-2009	01:25	Ehk	LF3161AA 9187206	G9G060000-206	A-000012.	1000 mL	20 mL	1	
09-JUL-2009	02.16	fhk	LF3161AC 9187206	G9G060000-206	A-000013.	1000 mL	20 mL	1	1
09-JUL-2009	03:06	tthk 🖳	LF3H41AC 9187206	G9G030156-1 1	A-000014.	1007.3 mL	20 mL	1	1
09-JUI:-2009	03:57	fhk —	LF3H51AC 9187206	G9G030156-2 1	A-000015.	996.15 mL	20 mL	1	1
09-JUL-2009	04:47	fhk	LF3H61AC 9187206	G9G030156-3 1	A-000016	1005.3 mL	20 mL	1	l
09-JUL-2009	05:38	fhk	STD_6 09GCSV0054	.4K/.2/.2/.2/	A-000017.	0 g	0 mL	1	<b>4</b>

## A-000011.D

End Col Date:

Chromatography Summary

Injection Date:

7/9/2009 0 35

LCIO

Operator: fik

DataFile: Instrument ID: LC10 I\07082009 B\A-000011 D

Vial Num: 3

Method 8330 Target Analyte Results

Sample:

Mise, Info:

STD_5 09GCSV0053 .2K/.1/.1/.1

Method File:

LC10 N07082009 BV8330AB M

Start Cal Date:

6/10/2009 15:33

6/11/2009 13 47

Matrix NONE SubList: CAL sub .5; , ; ,3,CAL sub, ,0,1

STD_5 09GC\$V0053 .2K/.1/.1/.1/ 1;2 Samp. Info:

SpikeList:

Dilution Factor Extract Volume Sample Volume Sample Weight

IX0 mL 0 mL Ôβ

			Signal 1 U	JV 250-2	65					Şıgnal 2 UV					
Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4 Dinitrotoluene	18 20	4739	100.5000<	100	1%	Acceptable		18.21	90/3	104 8000	100	5%	Acceptable	(±15)	
нмх	5.29	12630	104 5000<	100	5%	Acceptable					100	-100%	Fails	(±15)	45
RDX	7.85	8029	103.1000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
Picne ACID	9 05	16777	202,7000	200	1%	Acceptable		9 06	24679	202 8000<	200	1%	Acceptable	(±15)	
1,3.5-Trantrobenzene	10 20	15097	102 3000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
1,3-Dinitrobenzene	13 26	14436	103 3000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
TETRYL	14 34	9407	101 4000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
Nitrobenzene	15 18	6290	103 7000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2,4,6-Trinitiotoluene	16.56	8976	102 3000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17 55	6365	102.1000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18.62	7472	101 6000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,6-Dinitrotoluene	20 35	5434	102.1000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,4-Dimirotoluene	21.06	8697	101.6000<	100	2%	Acceptable					100	-100%	Fails	(±1S)	45
2-Nitroteluene	24.79	3631	101.0000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
4-Nitrotolvene	26.60	4405	100.6000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
3-Nitrotoluene	28 62	4379	101.5000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
Nitroglycerin				100	-100%	Fails		15 81	6320	103.9000<	100	4%	Acceptable	(±15)	45
PETN				100	-100%	Fails		30.24	3390	105 4000<	100	5%	Acceptable	(±15)	45
3,5-Dinitroaniline	14 01	9130	101 5000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
EGDN				100	-100%	Fails		NB	F	···	100	-100%	Fails	(±15)	

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/9/2009 9:27 AM

Data File: \\Terastation\share\GCdata\LC10.I\07082009.B\A-000011.D Page 1 Report Date: 09-Jul-2009 01:21

#### Test America West Sacramento

Method 8330

Data file: \\Terastation\share\GCdata\LC10.I\07082009.B\A-000011.D Lab Smp Id: STD_5 09GCSV0053 .2

Inj Date : 09-JUL-2009 00:35

Inst ID: LC10.i Operator : fhk

Smp Info : STD_5 09GCSV0053 .2K/.1/.1/.1;2

Misc Info: ;5; ; ;3;CAL.sub; ;0;1 Comment: SOP SAC-LC-0009

Method : \Terastation\share\GCdata\LC10.I\07082009.B\8330AB.m Meth Date : 09-Jul-2009 01:21 tap Quant Type: AREA% Cal Date : 11-JUN-2009 13:47 Cal File: A-000015.d

Continuing Calibration Sample

Als bottle: 3
Dil Factor: 1.00000
Integrator: Falcon+

Compound Sublist: CAL.sub

Target Version: 4.14

Processing Host: SACP307HPLC

RT	AREA	HEIGHT	HT/AREA	% HEIGHT	COMPOUNDS	
	=========	=======================================	======	=======	=======================================	= = = =
5.289	81309	12630	0.155	8,64	2 HMX	
7.849	92683	8029	0.087	5.49	3 RDX	
8.599	1160	108	0.093	0,07		
9.052	241185	16777	0,070	1,1,58	5 Picric ACID	
10.202	207248	15097	0.073	10.33	6 1,3,5-Trinitrobe	∍nz€
12.785	11.9	30	0.252	0.02		
13.259	246389	14436	0.059	9.88	7 1,3-Dinitrobenze	ene
14.005	15171.6	9130	0.060	6,25	8 3,5-Dinitroanili	ine
14.335	168680	9407	0.056	6.43	9 TETRYL	
15.179	121046	6290	0.052	4,30	10 Nitrobenzene	
16.559	173239	8976	0.052	6.14	12 2,4,6-Trinitroto	olue
17.552	134801	6365	-0.047	4.35	13 4-AM-2,6-DNT	
18.202	90656	4739	0.052	3.24	\$ 1 3,4-Dinitrotolue	ene
18.622	179304	7472	0.042	5.11	14 2-AM-4,6-DNT	
20.349	124935	5434	0.043	3.71	15 2,6-Dinitrotolue	ene
21.062	214815	8697	0.040	5.95	16 2,4-Dinitrotolue	ene
22.369	505	45	0.089	0.03		
24.785	102226	3631	0.036	2,48	17 2-Nitrotoluene	
26,599	132676	4405	0.033	3,01	18 4-Nitrotoluene	
28,622	142181	4379	0.031	2.99	19 3-Nitrotoluene	
	==========			=======================================		
	2606872	146077		100.000		

Total unknown % height = 0.1200

### A-000017.D

Chromatography Summary

Injection Date:

7/9/2009 5.38

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: 1.C10 I\07082009 B\A-000017 D 1.C10 Vial Num: 4

Sample:

STD_6 09GCSV0054 .4K/.2/.2/.2/.2

Spikel.ist:

SubList: CAL sub

Method File:

LC101\07092009 B\8330AB M

Start Cal Date: 6/10/2009 15 33 End Cal Date: 6/11/2009 13 47

Dilution Factor Extract Volume Sample Volume Sample Weight

ļ

1X 0 mL

0 mL 0 g

Samp. Info:

Matrix:

STD_6 09GC\$V0054 4K/2/2/2/2,2

Mise, Info: ,6, , , ,3;CAL sub; ;0;1

NONE

			Signal 1 U	JV 250-2	65	L/		Signal 2 UV 358-205								
Compound Name	RT	Response	PPB	Spike Level	%I)	Result	Flag	RT	Response	PPB	Spike Level	% D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	1821	9682	205.3000<	200	3%	Acceptable		1821	18470	213 6000	200	7%	Acceptable		(±15)	
хмн	5 29	25614	212.0000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
KOX	7 85	16441	211.1000<	200	вя	Acceptable					200	-100%	Fails		(±15)	45
Picric ACID	9 03	42453	512 9000	500	3%	Acceptable		9 03	62382	512 7000<	500	3%	Acceptable		(±15)	
1,3.5.Trinitrobenzene	10 20	30599	207.3000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
1,3-Dinitrobenzene	13 26	29254	209.4000<	200	5%	Acceptable					200	-100%	Fails		(±15)	45
TETRYI,	14 34	19071	205.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
Nurobenzene	15 18	12804	211 0000<	200	6%	Acceptable					200	-100%	Fails		(±15)	45
2.4,6-Trinitrotoluene	16.56	18126	206 6000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17 56	12935	207,6000<	200	4%	Acceptable					200	-100%	Fails		(±15)	45
2-AM-4.6-DNT	18.62	15164	206 1000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.35	10941	205.5000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2,4-Dimmotoluene	21 07	17582	205 3000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
2-Nitrotoluene	24 78	7317	203.6000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
4-Nitrotoluene	26 60	8872	202 6000<	200	1%	Acceptable					200	-100%	Fails		(±15)	45
3-Nitrotoluene	28.62	8320	204 5000<	200	2%	Acceptable					200	-100%	Fails		(±15)	45
Nitroglycerin				200	-100%	Fails		15 81	12540	206.1000<	200	3%	Acceptable		(±15)	45
PETN				200	-100%	Pails		30.24	6634	207.0000<	200	4%	Acceptable		(±15)	45
3,5-Dimtroandine	14 01	18615	206.9000<	200	3%	Acceptable					200	-100%	Fails		(±15)	45
EGDN				200	-100%	Fails					200	-100%	Fails		(±15)	

Notes

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/9/2009 9:29 AM

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC10 Batch ID: 07102009

Method: Method 8330 Test: SOP SAC-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or	Extract	Diln	Comments
	 			1 .	Wt	Vol		
10-JUL-2009	_	fhk	Primer	A-000001.		O to L	1	1
10-JUL-2009	12:29	fhk	Primer	A-000002.	0 g	0 mL	1	l
10-JOT-5003	13:20	fhk	STD_5 09GCSV0238 .2K/.1/.1/.1/	/A-000003.	0 g	0 mL	1	Í
.0-JUL-2009	14:10	fhk	LF4ER1AA 9187409 G9G060000-409	A-000004.	2 g	40 mL	1	İ
LO-JUL-2009	15:01	fhk	LF4ER1AC 9187409 G9G060000-409	A-000001.	2 g	40 mL	1	[
0-JUL-2009	15:51	fhk	LFVNN1AA 9187409 A9F300167-1 1	A-000005.	1,98 g	40 mL	1	I
LO-JUL-2009	16:42	fhk	LFVPW1AA 9187409 A9F300167-2 1	A-000007.	1.98 g	40 mL	1	1
LO-JUL-2009	17:32	fhk	LFVP11AA 9187409 A9F300167-3 1	A-000003.	2 03 g	40 mL	1	·
10-JUL-2009	18:23	fhk	LEVP31AA 9187409 A9F300167-4 1	A-000007.	2.01 g	40 mL	1,	I
.o-JUL-2009	19:13	fhk	LFVP41AA 9187409 A9F300167-5 1	A-00001).	2.01 g	40 mL	1	I
0-JUL-2009	20:04	fhk	LFVP81AA 9187409 A9F300167-6 1	A-000011.	2.01 g	40 mL	1	1
0-JUL-2009	20:54	fhk	LFVP91AA 9187409 A9F300167-7 1	A-000012.	1.99 g	40 mL	ı	l
.o-JUL-2009	21:45	fbk	STD_6 09GCSV0054 .4K/.2/.2/.2/	A-000013.	0 g	O mL	1	<u> </u>
.0-JUL-2009	22:36	fhk	LFR101AA 9187409 A9F290128-4 1	A-000014.	2 g	40 տ ե	1	1
0-JUL-2009	23:26	fhk	  LFR101AD 9187409 A9F290128-4 S	A-000015.	1.99 g	40 mL	1	l
1-JUL-2009.	00:17	lfhk	LFR101AE 9187409 A9F290128-4 D	A-000016.	1.99 g	40 mL ]	1	}
1-JUL-2009	01:07	1	LFR111AA 9187409 A9F290128-5 1		- 1	40 mL	1	1
1-JUL-2009	01:58	fhk	  LFR121AA 9187409 A9F290128-6 1	A-000018.	2 g	40 mL	1	
1-JUL-2009	02:48	•	LFR131AA 9187409 A9F290128-7 1	, ,	2 g	40 mL	1	 
1-JUL-2009	03:39	•	  LFR141AA 9187409 A9F290128-8 1		1.99 g	40 mL	1	
1-JUL-2009	04:29	*	STD 5 09GCSV0238 .2K/.1/.1/.1/	•	0 g	O mL	1	l
1-JUL-2009	05:20		: <del>-</del>	A-000022.	- :	20 mL	1	,,,, [
1-JUL-2009	06:12		LF3H61AC 9187206 G9G030156-3 5	•		20 mL	5	' <del></del>
1-JUL-2009 ]	07:01	- A		A-000024.	10 g	80 mL i	1.	
1-JUL-2009				A-000025.	10 q	80 mL	1	<del></del>
1-JUL-2009	08:42	•	LFX4Q1AA 9189394 G9G010246-1 1	1	· ·	80 mL	1	i
1-JOL-2009	09:33	•	LFX4Q1ACS 9189394 G9G010246-1M	:	10 g	80 mL	1	
1-JUL-2009		:	LFX4Q1ADD 9189394 G9G010246-1M	: :	9.99 g	80 mL	1	
1-JUL-2009		•	LFX4R1AA 9189394 G9G010246-2 1	: :	9.06 g	1 In 08	1	
			LFX4T1AA 9189394 G9G010246-3 1	:	- :	80 mL	1 1	<del></del>
1-JUL-2009	12:04		**		~ .			manner de l'action de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la company de la compa
1-JUL-2009	Manager Company of the Company		STD_5 09GCSV0238 .2K/.1/.1/.1/		0 g	O mL	1	
1-JUL-2009		•		A-000032.	3 a	40 mL	1	
1-JUL-2009			LF5WA1ACC 9188431 LCS 1X LFXP31AA 9188431 A9G010193-1 1	[A-000033.]	2 g [	40 mL	1 1	
1-JUL-2009					2 g		1 1	
1~JUL-2009			LFXP31AES 9188431 A9G010193-1M		2 g ]	40 mL	1 1	
1-JUL-2009			LFXP31AFD 9188431 A9G010193-1M		2 g			
1-JUL-2009			LFXQQ1AA 9188431 A9G010193-2 1 STD 5 09GCSV0238 .2K/.1/.1/.1/		2 02 g   0 g	40 mL	1 ) 1	

### A-000021.D

Chromatography Summary

Injection Date:

711/2009 4 29

LCIO

Operator: thk

DataFile: Instrument ID: LC10.1/07102009 BVA-000021 D

Vial Num; 4

Method 8330 Target Analyte Results

STD_5 09GCSV0238 .2K/.1/.1/.1

Method File:

LC10.R07102009.B\8330AB M

6/11/2009 13 47 Start Cal Date: \$/10/2009 15:33 End Cal Date: Dilution Factor Extract Volume Sample Volume Sample Weight

ŧx

 $0 \, mL$ 

 $0 \, \mathrm{mL}$ θg

Samp. Info:

Sample:

Matrix: NONE SubList: CAL, sub

SpikeList:

STD_5 09GC\$V0238 2K/.1/.1/ 1/.1.2

Misc. Info:

;5; ; , ,3;CAL sub; .0;1

Signal 1	UV 250-265						Signal 2 U	V 358-205
PPB	Spike	%D	Result	Flag	RT	Response	PPB	Spike

Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	ŔŤ	Response	PPB	Spike Level	%D	Result	Flag	Limits(%)	Flag
3,4-Dinitrotoluene	18 23	4761	100,9000<	100	1%	Acceptable		13 22	9142	105.8000	100	6%	Acceptable		(±15)	
нмх	5.29	12731	105,4000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
RDX	7.85	8006	102.8000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Piene ACID	9 07	17082	206,4000	200	3%	Acceptable		9 07	25079	205 1000<	200	34	Acceptable		(±15)	
1,3,5-Trantrobenzene	10.21	14836	100.5000<	100	1%	Acceptable					100	-100%	Fails		(±15)	45
1,3.Dinitrobenzene	13.27	14248	102 0000<	100	522	Acceptable					100	-100%	Fails		(±15)	45
TETRYL	14.35	9417	101.5000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
Nitrobenzene	15,19	6384	105 2000<	100	5%	Acceptable					100	-100%	Fails		(±15)	45
2,4,6-Trinitrotoluene	16.57	9006	102,7000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
4-AM-2,6-DNT	17 57	6469	103.8000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2-AM-4,6-DNT	18.63	7621	103 6000<	100	4%	Acceptable					100	-100%	Fails		(±15)	45
2,6-Dinitrotoluene	20.36	5436	102.1000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
2,4-Dimirotoluene	21 08	\$612	100 6000<	100	1条	Acceptable					100	-100%	Fails		(±15)	45
2-Nitrotoluene	24.80	3719	103 5000<	100	762	Acceptable					100	-100%	Fails		(±15)	45
4-Nitrotoluene	26 63	4483	102.4000<	100	2%	Acceptable					100	-100%	Fails		(±15)	45
3-Nitrotoluene	23.64	4429	102.7000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
Nitroglycerin				100	-100%	Fails		15.83	6116	100.5000<	100	1%	Acceptable		(±15)	45
PETN				100	-100%	Fails		30.27	3354	104.6000<	100	5%	Acceptable		(±15)	45
3.5-Dinitroantline	14.01	9259	102 9000<	100	3%	Acceptable					100	-100%	Fails		(±15)	45
EGDN					-100%	Fails						-100%	Fails		(±15)	

Notes

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 11:51 AM

Chromatography Summary

Injection Date:

7/11/2009 12 55

Operator: fhk

DataFile: Instrument 1D: '.C10 I\07102009.B\A-000031.D

Vial Num: 5

6/11/2009 13:47

Method 8330 Target Analyte Results

.C10

Sample :

STD_5 09GCSV0238 .2K/.1/.1/.1

SpikeList:

Method File:

Dilution Factor

١X

LC10 I\07102009 B\8330AB.M

6/10/2009 15 33 Start Cal Date:

Sample Volume

Matrixt Sublist: CAL sub

Extract Volume  $0 \, \text{mL}$ 

 $0 \, mL$ 

End Cal Date:

Sample Weight 0 g

\$TD_5 09GC\$V0238 .2K/.1/.1/ 1/ 1,2 Samp. Info;

Misc. Info:

,5, ; , ,3,CAL,sub, ,0,1

Sional 2 (IV 358-205

			Signal I (	JV 250-2											
Compound Name	RT	Response	PPB	Spike Level	% D	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinitrotoluene	18 24	4768	101.1000<	100	1%	Acceptable	***	18 25	9178	106 2000	100	6%	Acceptable	(±15)	
HMX	5.29	12737	105.4000<	100	5%	Acceptable					100	-100%	Fails	(±15)	45
RDX	7 86	8013	102 9000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
Piene ACID	9.07	17075	206.3000	200	3%	Acceptable		9 08	2505 1	205.9000<	200	3%	Acceptable	(±15)	
1,3,5-Trinitrobenzene	10 21	14849	100 6000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
1,3-Dinitrobenzene	13 28	[4249	102.0000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
TETRYL	14 37	9416	101.5000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
Nitrobenzene	15 21	6360	104.8000<	100	5%	Acceptable					100	-100%	Fails	(±15)	45
2,4,6.Trinitrotoluene	16.59	8994	102.5000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
4-AM-2,6-DNT	17.60	6456	103 6000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2-AM-4,6-DNT	18.66	7636	103 8000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2,6.Dinitrotoluene	20.39	5431	102 0000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,4-Dmitrotoluene	21 10	8609	100 5000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
2-Nitrotoluene	24 83	3699	102.9000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
4-Nitrotoluene	26.66	4472	102 1000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
3-Nitrotoluene	28.68	4415	102.4000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
Nitroglycerin					-100%	Fails		15 85	6140	100 9000<	100	1%	Acceptable	(±15)	45
PETN					-100%	Fails		30 33	3344	104 3000<	100	4%	Acceptable	(±15)	45
3,5-Dinttroaniline	14 03	9257	102 9000<	100		Acceptable					100	-100%	Fails	(±15)	45
EGDN		·			-100%	Fails					100	-100%	Fails	(±15)	

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/11/2009 2:11 PM

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC9 Batch ID: 06092009

Method: Method 8330 Test: SOP WS-LC-0009

ICAL Date: See Calibration Report

Comments	}	Dila	Extract	Vol or	File ID	ID	Sample	•	Operator	Time	Date
	١	1	Vol	Wt	!!				1	}	
***********	: # A		=======	0=8======	71. FA BUABURE		*=======	======================================			
···	1.	1	Jm O	0 g	C-000001.			Primer	]fhk	17:40	9-JUN-2009
	-1.	] 1	0 mL	0 g	C-000005 [			Primer	fihk	18.46	9-JUN-2009
<u></u>	l,	1	0 ጠጔ	0 g	C-000003.[			BLANK	] fibk	19:49	9-JUN-2009
	- 1	1	O mL	og	C-000004 /	5/0/0/0/0	09GC8V0048	STD_1	ihk	20:53	9-JUN-2009
	1_	1	O ml	0 g [	C-000005.	10/20/10/10/	0960870049	STD_2	fhk	21:56	9-JUN-2009
	1_	] 1	O mL	0 g	C-000006.	20/50/20/20/	09GC8V0050	STD 3	ithk	22:59	19~JUN-2009
	1_	1	O mL	0 g	C-000007.}	50/100/50/\$0	09GCSV0051	STD_4	fhk	00.03	0-JUN-2009
	1.	1	Q mL	0 g	C-000008.	100/200/100/	09GC3V0053	STD_5	] £hk	01:07	.0~JUN-2009
	1	1	O mL	0 g	C-000009.	200/500/200/	09GC\$V0054	STD_6	fhk	02:11	.0~JUN-2009
	1.	] 1	0 mL	0 g	C-000010.	500/1000/500	09GC3V0055	STD_7	fhk	03:16	0-JUN-2009
	1	1	0 mL	0 g	C-000011.	1000/2000/1K	09GC\$V0056	STD_8	fhk	04:20	0-JUN-2009
	1_	1	O mL	0 g	C-000013.]			BLANK	fhk	05:25	0-JUN-2009
<u></u>	1.	1	0 mL	0 g	C-000013.	200/500/200/:	08GCSV0397	ICV_6	fhk	06:29	.0-JUN-2009
	1	1	O mL	0 g	C-000014 }	100/200/100/	09GCSV0053	STD_S	fhk	07:33	0-JUN-2009



Page 1

#### TestAmerica West Sacramento

```
INITIAL CALIBRATION DATA
                 : 09-JUN-2009 20:53
Start Cal Date
                 : 10-JUN-2009 04:20
End Cal Date
                 : ESTD
Ouant Method
                 : Disabled
Origin
Target Version : 4.14
Integrator : HP Genie
                 : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Method file
Last Edit
                 : 10-Jun-2009 10:24 kenneyf
Curve Type
                 : Average
Calibration File Names:
Level 1: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000004.d
          \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d
          \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d
         \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d\\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d
Level 4:
Level 5:
Level 6: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d
Level 7: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d
Level 8: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000011.d
                       5 000 | 10.000 | 20.000 | 50.000 | 100.000 | 200.000 |
                       Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |
                                                                       % RSD
  Compound
                       500 000 1000.000
  49.60000 43.70000 40 45000 40 46000 39.51000 39.31500
                       1 45 40000 | 43.70000 | 42 75000 | 43.30000 | 42.16000 | 42.58500
   5 Picric ACED
                       | 63.46600| 67.27500|
                       95 20000 88.70000 87.25000 89 40000 87.58000 88.56500
```

2 950

87.00187

| 85.04400| 86.33600[

71.20000 68.50000 68.65000 68 54000 66.12000 66.97500

] 93.20000 \[ 86.50000 \] 85 70000 \[ 86.92000 \] 86.05000 \[ 86.26500 \]

8 3.5-Dinitroaniline

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53

End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled

Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf
Curve Type : Average

Compound	•	10.000   Level 2	•	•	-	-	. —	l l ∜RSD
Compound	Level 1	rever x	Pever 2			•	l	1
	•	1000.000		I		1	1	1
<u> </u>	•	Level 0	•	 	[ 	[ (	 	 
10 Nitrobenzene	•	42.00000	•	•	•	•	-	]
		40,30500			}		39.60025	5.00
11 Nitroglycerin		+++++		 	+++++	+++++		^~ 
•	+++++	++++	į	:	,   :	ĺ	+++++	+++++
12 2,4,6-Trinitrotoluene	104	91.00000	81.00000	77.36000	74.32000	   73,90500		•
	•	73.60800					80.89538	13.89
13 4-AM-2,6-DNT		69 80000		,	•	65.85500	 	 
	64 80800	65.14700					66 94625	2.81
14 2-AM-4,6-DNT	80.20000	[76.80000 م	75 45000	1	72 25000	73.07500	 	 
	69 79430	72 19800		1	[	· ·	74.28838	4.34
15 2,6-Dinitrotoluene	54 80000	52.40000	49 70000	49 88000	49.11000	49.44000	 	, <del></del>
	45 69200	49.41100	İ	ļ			50.05412	5.28
16 2,4-Dinitrotoluene	63.00000	82.40000	79.60000	80 22000	•	79.32000	 	,
	73.10400	78,73900	(	· .	1		79.40538	3,77
17 2-Nitrotoluene	24 50000	/25 30000 إ	23.52500]	. 24.39000 [24.39000]	. 24.32500	24.51250	! ا ا	· • • • • • • • • • • • • • • • • • • •
!	22 18600	لِ 24،2820 ر	_ [	اً.	Ī		24.12756	3 81:
18 4-Nitrotoluene	++++	+++++	+++++	+++++	+++++	+++++	 	:
1	+++++	+++++		ŀ	ĺ	[	+++++	+++++
19 3-Nitrotoluene	35.00000	32 50000)	30 55000	31,42000]	30.76000}	31.17500		
	28.82000	30.96400		ļ	į	į	31.39862	5.67
20 PETN	4++++	+++++ [	+++++ [	+++++	+++++	++++	,[ 	
· · · · · · · · · · · · · · · · · · ·	+++>+	+++++		ŀ	Ì	j	+++++	++++

Report Date : 10-Jun-2009 10:33 Page 3

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 20:53 End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled

: Disabled Origin Target Version : 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M
Last Edit : 10-Jun-2009 10:24 kenneyf

Curve Type : Average

Compound	•	•	20.000 Level 3	•	-	•	• —	* RSD
	•	  1000.000		 	 	 	 	
	,	Level 8	•			   ===================================	  ++======	******
\$ 1 3,4-Dinitrotoluene	•	46.40000 38.62800	40.85000	39 44000	38 04000 	,   38.34500 	39,65376	8.405
		<u> </u> 30.02000 	<u></u>		, 	1 		

Page 1

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

```
Start Cal Date : 09-JUN-2009 21:56
End Cal Date : 10-JUN-2009 04:20
                 : ESTD
Quant Method
                 : Disabled
Origin
Target Version : 4.14
Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8 Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average
Calibration File Names:
Level 2: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000005.d\C-0
Level 3: \Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000006.d\C-0
Level 4: \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000007.d\C-0
          \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000008.d\C-0
Level 5:
          \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000009.d\C-0
Level 6:
          \\Terastation\share\GCdata\GCdata\LC9.I\06092009.B\C-000010.d\C-0
Level 7:
          \Terastation\hare\GCdata\GCdata\LC9.I\06092009.B\C-000011.d\C-0
                        10.000 | 20 000 | 50.000 | 100.000 | 200.000 | 500.000 |
                        Level 2 | Level 3 | Level 4 | Level 5 | Level 6 | Level 7 | RRF | % RSD |
  Compound
                        11000 OCO |
                        Level 8
                       +++++ | 39.00000| 42.36000| 44.25000| 44 94000| 40.36600|
  7 1,3-Dinitrobenzene
```

9 TETRYL

### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56 End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled

Target Version : 4.14

Integrator : HP Genie
Method file : \\Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

20 PETN	++++	104	101	102	104{	104		
19 3-Nitrotoluene	++++	+++++	+++++	++*++	+++++ }	+++++   	+++++	++++
18 4-Nitrotoluene	+++++     +++++	<b>*</b> *****	+++++	++*++	+++++	+++++ [	+++++	+++++
17 2-Nitrotoluene	+++++	   ++++   	;   +++++     	#++++     	+++++     	+++++	+++++   	++++
16 2,4-Dinitrotoluene	++++	+++++	+++++	   +*+++	+++++	+++++     	+++++	++++
15 2,6-Dinstrotoluene	++++	   +++++   	   +++++	   +++++	+++++	   +++++	+++++   	+++++
14 2-AM-4,6-DNT	   ++++*   +++*	,   +++++   	   +++++   	++++++	+++++	,   +++++     	   +++++   	+++++
13 4-AM-2,6-DNT	   ++++4   ++++	   ++++   	,   +++++   	   +++++   	+++++	******   	+++++	+++++
12 2,4,6-Trinitrotoluene	+++++	' 	+++++   	+++++	4+++	+++++	+++++	+++++
11 Nitroglycerın	57.30100	<b>'</b>	55.16000	56.31000	57.02000	56.37800	56.23650	1.5
10 Nitrobenzene	+++++   ++++	+++++   	} +++++   	+++++	++++	+++++	   +++++   	++++
교육도 드로프로 등등에 발생하게 무류유야 가쁜 추운을 받으므는 되다.	}1000 000   Level 8 == =========	j		#447508UT		  -=========  	нянняя	=====
Compound	Level 2	Level 3 	Level 4			Level 7   	RRF	% RSD

Page 3 Report Date : 10-Jun-2009 10:35

#### TestAmerica West Sacramento

#### INITIAL CALIBRATION DATA

Start Cal Date : 09-JUN-2009 21:56

End Cal Date : 10-JUN-2009 04:20
Quant Method : ESTD
Origin : Disabled
Target Version : 4.14

Integrator : HP Genie
Method file : \Terastation\share\GCdata\LC9.I\06092009.B\8330CNAB.M\8
Last Edit : 10-Jun-2009 10:25 kenneyf
Curve Type : Average

	10.000	20.000	50.000	130 000	200.000	500 000	l	i	1
Compound	Level 2		•		•	:	RRP	% RSD	1
1	<b> </b>				ļ	}	}	1	1
1	1000.000	-	;	]	1	1	}	l	1
<b>\</b>	Level 8		)	1		Ī	1	l	1
440-50-22-24-44-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4		******	*****	====;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	~cx=====	пепапаная	*******		. }
\$ 1 3,4-Dinitrotoluene	1 +++++	+++++	++++	+++++	+++++	4++++	t	ļ	}
†	+++++			]	1	}	+++++	++++	<b> </b> <-
1	{				{		<b> </b>	<del>-</del>	1
									1

#### C-000013.D

Operator: fink

Chromatography Summary

Method 8330 Target Analyte Results

Sample:

ICV_6 08GCSV0397 200/500/200/200/200

NONE Matrix:

SubList: CAL sub

SpikeList:

400

200

200

6108 194 5000<

13705 204 2000<

-100%

-3%

24

200 -100%

200 -100%

200 -100%

ICV_6 08GC\$V0397 200/500/200/200/200;2 Samp. Info:

Misc. Info: , 6, , , ; 3; CAL sub, , 0, 1

4-Nitrotoluene

Nitroglycerin

3-Nitrotoluene 23.35

PETN

3.5-Dinitroamline 25 06

**EGDN** 

Injection Date: 6/10/2009 6 29

DataFile: LC9 I\06092009.B\C-000013.D

Vial Num: 20

Instrument ID: 1.09

Method File: LC9 N06092009.B\8330CNA8 M

Start Cal Date: 6/9/2009 20:53 End Cal Date: 6/10/2009 4 20 Dilution Factor Extract Volume Sample Volume Sample Weight

> ١X 0 mL 0 mL 0 g

> > 400 -100%

200 -100%

.200 -100%

200

200

5%

-8%

7%

Fails

Fails

Acceptable

Acceptable

Fails

Acceptable

 $(\pm 15)$ 

 $(\pm 15)$ 

 $(\pm 15)$ 

 $(\pm 15)$ 

 $(\pm 15)$ 

 $(\pm 15)$ 

45

45

45

45

45

\$1gnal 1 UV 250-265 Signal 2 UV 358-205 Flag Flag % D Flag RT Response PPB %D Limits(%) PPR RT Response Result Result Compound Name Level 6.5320< :97% ., Fails NOT I'M MH 200 -100% Fails (±15) 45 3,4-Dinitrotoluene 31.18 200  $(\pm 15)$ 45 HMX 35.11 8323 202 0000< / 1% Acceptable 200 -100% **Fails** 200 RDX 25 60 8556 201 0000< 1% Acceptable 200 -100% Fails  $(\pm 15)$ 45 200 500 -100% 500 -100% Pieric ACID Fails Fails  $(\pm 15)$ 1,3,5-Trinitrobenzene 21 78 13318 198.8000< -11% Acceptable 200 -100% Fails  $(\pm 15)$ 45 200 45 -1% 1,3-Dinitrobenzene 19.50 17403 197 6000< Acceptable 200 -100% Fails  $(\pm 15)$ 200 TETRYL 40.80 16134 185.4000< -7% Acceptable 200 -100% Fails  $(\pm 15)$ 45 200 45 146 Acceptable 200 -100% Fails  $(\pm 15)$ Nitrobenzene 16.81 7967 201 2000< 200 45 2,4.6-Transrotoluene 32 92 14562 180,0000< -10% Acceptable 200 -100% Fails  $(\pm 15)$ 200 45 4-AM-2,6-DNT 29.55 12516 187 0000< -7% Acceptable 200 -100% Fails  $(\pm 15)$ 200 2-AM-4,6-DNT 29 21 14216 191,4000< -4% 200 -100% Fails  $(\pm 15)$ 45 Acceptable 200 9755 194.9000< -3% Acceptable 200 -100% Fails (±15) 45 2,6-Dinitrotoluene 27 26 200 45 200 -100% (±15) 2,4-Dinitrotoluene 26 42 15486 195.0000< -35 Acceptable Fails 200 9684 401,4000< 2-Nitrotoluene 22 83 0% Acceptable 400 -100% Fails  $(\pm 15)$ 45 400

38 67

49 13

18.01

11785 209 6000<

19084 184 7000<

213.8000 -

Notes:

M = Manually Integrated

a Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Fails

Acceptable

**Fails** 

Fails

Acceptable

Fails

Signals Differ by More Than 50%

# TestAmerica West Sacramento GC/LC INSTRUMENT LOG

Inst ID: LC9 Batch ID: 07102009A Method: Method 8330 Test: SOP WS-LC-0009

ICAL Date: See Calibration Report

Date	Time	Operator	Sample ID	File ID	Vol or	Extract	Diln	Comments
	)	1	1	1	Wt	Vol	[	1
E112222222222			***************************************			.=482====	======	
10-JUL-2009	17:28	flik	Primer	C-000007,	[ 0 g ]	O mE	1	
10-JUL-2009	18:30	fhk	Primer	C-000002.	0 g	0 mL	1	<u> </u>
10-JUL-2009	19:32	fhk	STD_5 09GCSV0238 .2K/.1/ 1/ 1/	C-000003.	0 g	0 mL	1	1
10-JUL-2009	20:34	fhk	LF1EN1AA 9183251 G9G020000-251	C-000004.	1000 mL	20 mL	1	
10-JUL-2009	21:36	fhk	LFXXW1AC 9183251 G9G010225-1 1	C-000005.	1021.57 mL	20 mL	1	l
10-JUL-2009	22:39	fhk	LFX111AC 9183251 G9G010225-3 1	[C-000006.	1024.15 mL	20 mL	1	l
10-JUL-2009	23:41	fhk	LFX121AC 9183251 G9G010225-4 1	C-000007.	1019.2 mL	20 mL	1	l
11-JUL-2009	00:43	]fhk	LFX151AC 9183251 G9G010225-5 1	C-00000s.	1021.92 mL	20 mL	1	Ì
3.1-JUL-2009	01:45	fhk	LF7A31AA 9189394 G9G080000-394	C-000009.	10 g	30 mL	1	\
11-JUL-2009	02:48	fhk	LFX4Q1AA 9189394 G9G010246-1 1	JC-000010. J	10.01 g	80 mL	1	J
J1-JUL-2009	03:50	fhk	LFX4R1AA 9189394 G9G010246-2 1	[C-000011.]	9.06 g	40 mL	1.	ļ
11-JUL-2009	04:52	fhk	LFX4T1AA 9189394 G9G010246-3 1	C-000012.	10.01 g j	80 mL	1	}
11-JUL-2009	05:54	fhk	STD_6 09GCSV0054 .5K/.2/.2/ 2/	C-000013.	0 g	O mL	ı	l
1.1-JUL-2009	06:57	fhk	LF3161AA 9187206 G9G060000-206	C-000014.	1000 տե	20 mL	1.	l
11-JUL-2009	07:59	fhk 🦡	LF3H41AC 9187206 G9G030156-1 1	C-000015.	1-000, mL	20 mL	1.	1007.3 m
11-JUL-2009	09:01	fhk	LF3H51AC 9187206 G9G030156-2 1	C-000016.	1000 mL	20 mL	1	1996.15
11-JUL-2009	10:03	fhk	LF3H61AC 9187206 G9G030156-3 5	C-000017.	Int Coor	20 mL	5	11005.3
11-JUL-2009	11:06	fhk	LF5WAIAA 9188431 09G070000-431	C-000018.	2 g	40 mL	1	BUK
11-JUL-2009	12:08	fhk	LFXP31AA 9188431 A9G010193-1 1	C-000019.	2 g	40 mL	1	1 July 1
11-JUL-2009	13:10	fhk	LFXQQ1AA 9188431 A9G010193-2 1	[C-000020.]	2.02 g	40 mL }	1	MIGUN
11-JUL-2009	14:12	flik	LFW791AAR 9182192 MB 1X	C-000021	1000 mL	20 mL	ı	1
1 11-JUL-2009	15:14	l Enk	LFV9M1AC 9182192 G9F300242-5 1	C-000022.	1016 72 mL	20 mL	1	
11-JUL-2009	16:16	•	STD 5 09GCSV0238 .2K/.1/.1/.1/		0 q	O mL	1	

### C-000013.D

Chromatography Summary

Injection Date:

7/11/2009 5 54

Operator: fik

DataFile: Instrument ID: LC9 I\07102009A B\C-000013 D

Vial Num: 3

Sample:

STD_6 09GCSV0054 .5K/.2/.2/.2/.2

Method File:

LC9.W7102009A B\8330CNAB.M

Start Cal Date: Dilution Factor 6/9/2009 20 53

End Cal Date:

6/10/2009 4.20

Matrix: NONE Samp. Info:

SubList: CAL sub

SpikeList:

Extract Volume Sample Volume

jχ

0 mL

 $0 \, \mathrm{mL}$ 

Sample Weight  $0\,g$ 

STD_6 09GCSV0054 .5K/.2/ 2/ 2/ 2/2;2

Misc. Info:

, 6, . . . 3, CAL sub.; 0; 1; 0

Method 8330 Target Analyte Results

Signal 1 UV 250-265 Signal 2 UV 358-205

Compound Name	RT	Response	PPB	Spike Level	%D	Result	Flag	RT	Response	ррв	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinstrotoluene	30 69	8487	214 0000<	200	7%	Acceptable					200	-100%	Fails	(±15)	45
HMX	34 67	7594	184.3000<	200	-8%	Acceptable					200	-100%	Fails	(±15)	45
RDX	25.16	8673	203 8000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
Pierie ACID				500	-100%	Fails					500	-100%	Fails	(±15)	
1,3,5-Trinitrobenzene	21 54	13992	208.9000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
1,3-Dinitrobenzene	19 18	18240	207 1000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
TETRYL	40 38	18246	209 7000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
Nitrobenzene	16.47	8291	209 4000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
2,4,6-Transtrotofuene	32 59	16243	200.8000<	200	9%	Acceptable					200	-100%	Fails	(±15)	45
4-AM-2,6-DNT	29 08	13363	199 6000<	200	0%	Acceptable					200	-100%	Fails	(±15)	45
2-AM-4,6-DNT	28 74	14987	201.7000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
2,6-Dinstrotoluene	18 92	10167	203 1000<	200	2%	Acceptable					200	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	25 99	16528	208.1000<	200	4%	Acceptable					200	-100%	Fails	(±15)	45
2-Nitrotoluene	22 38	10164	421.3000<	400	5%	Acceptable					400	-100%	Fails	(±15)	45
4-Nitrotoluene				400	-100%	Fails					400	-100%	Fails	(±15)	
3-Nitrotoliiene 2	22 90	6323	201.4000<	200	1%	Acceptable					200	-100%	Fails	(±15)	45
Nitroglycerin				200	-100%	<b>Fails</b>		38.25	11803	209.9000<	200	5%	Acceptable	(±15)	45
PETN				200	-100%	Fails		48 78	21503	208 1000<	200	4%	Acceptable	(±15)	45
3,5-Dmitroandine	24 65	13757	205 0000<	200	3%	Acceptable					200	-100%	Fails	(±15)	45
EGDN				200	-100%	Fails		1780	9381	221 8000	200	11%	Acceptable	(±15)	45

Notes.

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Differ by More Than 50%

Printed: 7/11/2009 11:30 AM

### C-000023.D

Chromatography Summary

Injection Date:

7/11/2009 16:16

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: I.C9.I\07102009A B\C-000023.D

Vial Num: 4

Sample:

STD_5 09GCSV0238 .2K/.1/.1/.1

Method File: Start Cal Date:

Dilution Factor

LC9 I\07102009A B\8330CNAB M

6/9/2009 20.53

LC9

009 20.53 End Cal Date:

6/10/2009 4:20

Matrix: NONE

SubList: CAL sub

SpikeList:

Extract Volume Sample Volume

Sample Weight

Samp, Info:

STO_5 09GCSV0238 2K/ 1/ 1/.1/ 1,2

ор....

1X 0 mL

0 mL 0 g

Misc. Info: , 5, , ; ; 3, CALsub; , 0, 1, 0

at and concern occ	
Signal I UV 250-265	Signal 2 UV 358-205

Compound Name	RT	Response	PPB	Spike Level	%በ	Result	Flag	RT	Response	PPB	Spike Level	%D	Result	Flag Limits(%)	Flag
3,4-Dinmotoluene	30 65	4159	104,9000<	100	5%	Acceptable					100	-100%	Fails	(±15)	45
нмх	34.66	3754	91.1000<	100	-9%	Acceptable					100	-100%	Fails	(±15)	45
RDX	25 13	4283	100 6000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
Picric ACID				200	-100%	Fails					200	-100%	Fails	(±15)	
1,3,5-Trinitrobenzene	21 50	6847	102.2000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
1,3-Dmitrobenzene	19 16	8905	101 1000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
TETRYL	40 39	8996	103 4000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
Nitrobenzene	1646	4129	104 3000<	100	4%	Acceptable					100	-100%	Fails	(±15)	45
2,4,6-Transtrotoluene	32 52	7906	97.7300<	100	-2%	Acceptable					100	-100%	Fails	(±15)	45
4-AM-2,6-DNT	29.04	6374	102 7000<	100	3%	Acceptable					100	-100%	Fails	(±15)	45
2-AM-4,6-DNT	28 71	7546	101 6000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2,6-Dinitrotoluene	2677	5040	100 7000<	100	1%	Acceptable					100	-100%	Fails	(±15)	45
2,4-Dinitrotoluene	25 95	8071	101,6000<	100	2%	Acceptable					100	-100%	Fails	(±15)	45
2-Nitrotoluene	22 34	5089	210 9000<	200	5%	Acceptable					200	-100%	Fails	(±15)	45
4-Nitrotoluene				200	-100%	Fails					200	-100%	Fails	(±15)	
3-Nitrotoluene	22.86	3157	100 5000<	100	1%	Acceptable						-100%		(±15)	45
Nitroglycerin				100	-100%	Fails		38 25	5728	101 8000<	100	2%	Acceptable	(±15)	45
PETN				100	-100%	Fails		48 84	10890	105 4000<	100	5%	Acceptable	(±15)	45
3,5-Dinitroaniline	24 62	6884	102,6000<	100	3%	Acceptable						-100%	Fails	(±15)	45
EGDN				100	-100%	Fails		17.78	4429	104 7000	100	5%	Acceptable	(±15)	45

Notes

M = Manually Integrated

D = Operator Disabled Result

O = Over Calibration Range

Signals Differ by More Than 40%

Signals Deffer by More Than 50%

Printed: 7/11/2009 5:43 PM

23L4MW 09MW

## A-000014.D

Chromatography Summary

Injection Date:

7/9/2009 3 06

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument ID: LC10 I\07082009 B\A-000014 D LC10

Vial Num: 20

Sample:

LF3H41AC 9187206 G9G030156-1 1X

Method File:

LC10.N07082009 B\8330AB M

Start Cal Date:	_
Dilution Facto	D1

6/10/2009 15 33

End Cal Date:

6/11/2009 13:47

Matrix: WATER SubList: WATER sub

SpikeList:

1X

Extract Volume

Sample Volume

Sample Weight

Samp. Info;

LF3H41AC 9187206 G9G030156-1 1X:0,

20 mL

Signal 2 UV 358-205

1007,3 mL

Ûд

Misc. Info:

:.1007.3.,20;1;WATER sub;;0;1,LF3H41AC

Signal 1 UV 250-265

								Maria 0 1 330-2	· · · · · · · · · · · · · · · · · · ·			
Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag MDL	RL	Flag
3,4-Dinitrotoluene	18.24	0.032	5816	2,4480<		18.24	0.032	11243	2.5820	0.0000	0.00	
HMX							1/			0.0268	0 10	
✓ RDX	7.88	0.022	11039	2.8140<	- Congl	rund	ONCA			9.0645	0.10	45
Piene ACID					1.4	whol	med on	co M		0 1241	0.99	
1,3,5-Trinitrobenzene	10.39	0.189	2271	0,3055<	- Vo,	C47-1				0.0308	0.10	45
1,3-Dinitrobenzene							8 LK	w w		0 0496	0.10	
TETRYL							" al	1469		0 0496	0 10	
Nitrobenzene							7(	. ( )		0 0496	0 10	
2,4,6-Trimtrotolucne										0 0238	0 10	
4-AM-2,6-DNT										0 0218	010	
2-AM-4,6-DNT										0.0993	0 20	
2,6-Dmitrotoluene										0 0496	0.10	
2,4-Dinitrotoluene										0 0496	0 10	
2-Nitrotoluene										0.0715	0.50	
4-Nitrotoluene										0.0715	0.50	
3 Nitrotoluene										0 0616	0.50	
Nitroglycerin										0 3276	0.65	
PETN										0.2978	0 65	
3,5-Dmitroanilme										0 0248	0.99	

		<del></del>					
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
			=				
3,4-Dinitrotoluene	2.4819	2,4480	99	2.4819	2.5820	104	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/14/2009 1:05 PM

## C-000015.D

Chromatography Summary

Injection Date:

DataFile:

7/11/2009 7:59

Operator: fik

LC9.I\07102009A.B\C-000015 D

Vial Num: 21

0 g

## Method 8330 Target Analyte Results

Instrument ID;

Sample:

LF3H41AC 9187206 G9G030156-1 1X Method File:

LC9 I\07102009A B\8330CNAB M

6/10/2009 4 20 Start Cal Date: 6/9/2009 20.53 End Cal Date: Dilution Factor Sample Volume Sample Weight Extract Volume

Matrix WATER

SubList: WATER sub

SpikeList:

1X

20 mL

1007.3 mL

Samp. Info: Misc. Info:

LF3H41AC 9187206 G9G030156-1 1X,0,

,.1007 3,;20,1,WATER sub;;0,1;LF3H41AC

			Signal 1 U	JV 250-2	265		Signal 2 UV 358-205							
Compound Name	RT	Diff	Respon	se	Conc (ug/L)	Flag	RT	Diff	Response	Conc (ug/L)	Flag	MDL	RL	Flag
3,4-Dinitrotoluene	30,74	0.088		5308	2.6583<							0.0000	0.00	45
HMX							a. 1					0.0268	0.10	
<b>₩</b> RDX	25.25	0.116		5549	2.5890<	-(0	sufirmal					0.0645	0.10	45
Piene ACID	List	confirm	ned									0 1241	0.99	
1.3,5-Trinitrobenzene	\W)4	CONNE		JUK	-100							0 0308	0.10	
1,3-Dintrobenzene				,	7/14/109							0 0496	010	
TETRYL												0.0496	0.10	
Nitrobenzene												0 0496	010	
2,4,6-Tranitrotoluene												0.0238	0.10	
4 AM-2,6-DNT	29.18	0.136		110	0 0326<							0.0218	0.10	45
2-AM-4,6-DNT												0 0993	0.20	
2,6-Dintrotoluene												0 0496	010	
2,4-Dinitrotoluene												0.0496	0.10	
2-Nitrotoluene												0 0715	049	
4-Nitrotoluene												0 0715	0 49	
3-Nitrotoluene												0 0616	0.49	
Nitroglycerin												0 3276	0 64	
PETN												0.2978	0.64	
3,5-Diestroamline												0 0248	0 99	

	·			<del></del>		
Surrogatesi	Spiked	Recovered	% Rec	Spiked Reco		Limits
	·		<del></del>	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	:===:	
3.4-Dinitrotoluene	2,4819	2,6580	107	2,4819	0	(48-143)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

## A-000015.D

Chromatography Summary

Injection Date: DataFile:

7/9/2009 3 57

Operator: fik

Vial Num: 21

Method 8330 Target Analyte Results

Instrument ID:

LF3H51AC 9187206 G9G030156-2 1X

Mcthod File:

LC10 N07082009 B\8330AB M

LC10 I\07082009 B\A-000015 D

Start Cal Date: Dilution Factor 6/10/2009 15:33

End Cal Date:

6/11/2009 13:47

WATER Matrix:

SubList: WATER sub

SpikeList:

Extract Volume

Sample Weight

Samp. Info:

Sample:

LF3H51AC 9187206 G9G030156-2 1X,0,

1X

20 mL

996.15 mL

Sample Volume

0 g

Mise. Info:

:,996 15;;20,1,WATER sub.,0 1;LF3H51AC

4		
Sional	LUV 250-265	

Signal 2 UV 358-205

			1916101 1 0 1 2,50 2	<del></del>				3.611112 3 1 2.30 2	<del>~~~~~</del>			
Compound Name	RT	Diff	Response	Cone (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag MDL	RL	Flag
3,4-Dinitrotoluene	18.2.3	0.022	5996	2,5520<		18.23	0.022	11570	2.6870	0.0000	0.00	
И́нмх	5.30	0.005	23018	3.8250<	-7/10	Lutin	dono	Les of		0.0271	0.10	45
✓ ROX	7.87	0.018	74461	19.1900<	-/ 01	<b>ω</b> γ***-	0.00			0.0653	0.10	45
Pierie ACID					** 1	10.	Mars	W 10 _		0 1255	1 00	
1,3,5-Trinitrobenzene	10.37	0.168	2549	0.3467<	-N4	CINTON	C	W 10		0.0311	0.10	45
1,3-Dinutrobenzene							4.4	1.20		0.0502	010	
TETRYL							/sj)1	PRC IN CL.	•	0 0502	0.10	
Nitrobenzene							,	7/1410	1	0 0502	0.10	
2,4.6-Trimtrotoluene										0.0241	0 10	
4-AM-2.6-DNT										0.0221	0.10	
2-AM-4 6-DNT										0 1004	0.20	
2,6-Dinitrotoluene										0 0502	0.10	
2,4-Dinitrotoluene										0 0502	0.10	
2-Nitrotoluene										0 0723	0.50	
4-Nitrotoluene										0 0723	0.50	
3-Nitrotoluene										0 0622	0.50	
Nitroglycerin										0.3313	0.65	
PETN										0 3012	0.65	
3.5 Dantroanline										0 0251	1 00	

Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	%Rec	Limits
3,4-Dinitrololuene	2,5097	2,5520	102	2,5097	2,6870	107	(79-111)

Notes

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

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## C-000016.D

Chromatography Summary

WATER

Injection Date:

7/11/2009 9:01

1.09

Operator: fik

Method 8330 Target Analyte Results

DataFile: Instrument II): LC9 I\07102009A B\C-000016 D

Vial Num: 22

Sample:

Matrix:

LF3H51AC 9187206 G9G030156-2 1X Method File:

SpikeList:

LC9.f\07102009A B\8330CNAB.M

art Cal Date:	6/9/2009 20 53	End Cal Date:	6/10/2009 4 20	
Oilution Factor	Extract Volume	Sample Volume	Sample Weight	
1X	20 mL	996.15 mL	0 g	

Samp. Info: LF3H51AC 9187206 G9G030156-2 1X,0,

Mise, Info:

,,996.15;;20,1,WATER sub,;0;1;LF3H51AC

SubList: WATER sub

Compound Name 3,4-Dinitrotoluene	RT 30,72	Diff	Response	~ . ~ .								
	30.72			Cone (ug/L)	Flag	RT	Diff	Response	Cone (ug/L)	Flag MDI	RL	Flag
3 4		0.070	5563	2.8170<			/			0.000	0,00	45
<b>₩</b> HMX	34.70	0.046	6845	3.3350<	-70	nt'in	nt.			0,027	0.10	45
RDX	25.24	0.104	37126	17.5200<	- /	•				0.065	0.10	45
Pierie ACID	11 th		Invad 10							0.125	1 01	
1,3,5-Trinitrobenzene	.00	Circl	عسير		λlui					0 031	0.10	
1,3-Dinitrobenzene				S	111	4109				0.0503	0 10	
TETRYL					7/10	(,,,				0.0500	0.10	
Nitrobenzene										0.0502	0.10	
2,4,6-Trinitrotoluene										0 0241	0 10	
4-AM-2,6-DNT	29 10	0.063	107	0.0321<						0 0223	0 10	45
2-AM1,6-DNT										0 100-	0 20	
2,6-Dinitrotoluene										0.0502	0.10	
2,4.Dmitrotoluene										0.0502	0.10	
2-Nitrotolucne										0 0723	0.50	
4-Nitrotoluene										0 0723	0.50	
3-Nitrotoluene										0.0623	0.50	
Nitroglycenn										0 3313	0 66	
PETN										0.3012	0 66	
3,5 Dimitroaniline										0 0251	1 01	

							<del></del>
Surrogates:	Spiked	Recovered	% Reu	Spiked	Recovered	%Rec	Limits
3,4-Dinitrotoluene	2.5097	2.8170	112	2,5097		0	(48-143)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

Printed: 7/14/2009 3:03 PM

TestAmerica West Sacramento

23L4MW028W

A-000023.D

1005,3 mL

Chromatography Summary

Injection Date:

7/11/2009 6 11

Operator: fik

WATER

DataFilet

LC10 N07102009.B\A-000023 D

Vial Num:

Method 8330 Target Analyte Results

Instrument ID:

1010

Sample:

Matrix

LF3H61AC 9187206 G9G030156-3 5X Method File:

SubList: WATER sub

5X

1.C10 I\07102009 B\8330AB.M

Start Cal Date:	6/10/2009 15 33	End Cal Date:	6/11/2009 13:47	
Dilution Factor	Extract Volume	Sample Volume	Sumple Weight	

LP3H61AC 9187206 G9G030156-3 5X,0, Samp, Info:

Mise, Info:

,;1005,3,;20;1;WATER sub,;0.5

Stenal I UV 250-265

SpikeList:

Szonal 2 LIV 358	205

20 mL

			Signal I UV 250-2	03				Signai 4 UV 358-4	.0.3				
Compound Name	КT	Diff	Response	Conc (ug/L)	Flag	RŢ	Diff	Response	Cone (ug/L)	Flag	MDL	RL	Fing
3,4-Dinitrotoluene	13.34	0.066	1202	2,5350<		18.34	0.069	2416	2,7800		0.0000	0.00	
✓ HMX	5.31	0.016	5180	4.2650<	>	1 mhime	A.	tn cV			0.1343	0.50	45
✓ RDX	7,93	0.062	65192	83.2500<	-1	Caper		911409			0.3233	0.50	45
Picric ACID								all with			0 6217	4.97	
1,3,5-Trinitrobenzene								Mickel			0 1542	0.50	
1,3-Dinitrobenzene											0 2487	0.50	
TETRYL											0 2487	0.50	
Nitrobenzene											0 2487	0.50	
2,4,6-Trinitrotolucne											0 1194	0 50	
4 AM-2,6-DNT											0 1094	0.50	
7-AM-4,6-DNT											0 4974	0 99	
2,6-Dinitrotoluene											0 2487	0.50	
2,4.Dmitrotoluene	21.17	0.042	308	0.3578<							0 2487	0.50	45
2-Nitrotoluene											0 3581	2 49	
4-Natrotolucne											0 3581	2 49	
3-Nitrotokiene											0 3084	2.49	
Nitroglycerin											1 6413	3 23	
PETN											1 4921	3.23	
3,5-Dintroaniline											0 1243	4.97	

							<del></del>
Surrogates:	Spiked	Recovered	%Rec	Spiked	Recovered	% Rec	Limits
							=======================================
3,4-Dinitrotoluene	2.4868	2.5350	102	2.4868	2.7800	112	(79-111)

Notes:

M = Manually Integrated

Signals Differ by More Than 40%

D = Operator Disabled Result

Signals Differ by More Than 50%

O = Over Calibration Range

## C-000017.D

Chromatography Summary

Injection Date: DataFile:

7/11/2009 10 03

Operator: 1hk

Method 8330 Target Analyte Results

Instrument ID:

LC9 I\07102009A B\C-000017 D

Vial Num: 23

Sample:

LF3H61AC 9187206 G9G030156-3 5x

Method File:

1,('9

5X

SpikeList:

LC9 I/07102009A.B\8330CNA8 M

Start Cal Date: Dilution Factor 6/9/2009 20:53

End Cal Date:

6/10/2009 4:20

WATER

SubList: WATER sub

5X

Extract Volume

1005.3 mL

Sample Volume

Sample Weight

0 g

Samp. Info: Misc. Info;

Matrix

LF3H61AC 9187206 G9G030156-3 5x 5X;0; "1005 3,,20,1,WATER sub;,0,5,LF3H61AC

20 mL

			Signal I UV 250-2	265				Signal 2 UV 35	8-205				
Compound Name	RT	Diff	Response	Conc (ug/L)	Flag	ŔŤ	Diff	Response	Cone (ug/L)	Flag N	MDL	RL	Flag
3,4-Dinitrotoluene	30.69	0.036	1177	2.9520<		·	ſ			0.	.0000	0.00	45
✓ HMX	34.70	0.045	1480	3.5720<	->700	, L',	ed.			0.	.1343	0.49	45
RDX	25.20	0.068	31840	74,4200<	-/4	,	ed Ver us			0.	3233	0.49	45
Pictic ACID						y	97 7/16	0.1		0	6217	4 95	
1,3,5-Trinitrobenzene					. 4		77			0	1542	0 49	
1,3-Dinktrobenzene	19.29	0.131	544	0.6145<	- The					0.	2487	0.49	45
TETRYL										0.2	2487	0 49	
Nurobenzene										0:	2487	0.49	
2,4,6 Transtratoluene										0	1194	0 49	
4-AM-2,6-DNT										0.	1094	0.49	
2-AM-4,6-DNT										04	4974	0 99	
2,6-Dimirotoluene										0.2	2487	0 49	
2.4-Dinitrotoluene	25.95	0.003	348	0.4359<						0:	2487	0 49	45
2-Nitrotoluene										0	3581	2.47	
4-Nitrotoluene										0.3	3581	2 47	
3-Nitrotoluene										0.3	3084	2 47	
Nitroglyceria										1.6	6413	3 22	
PETN										b. J	1921	3.22	
3,5-Dmitroanilme										0 1	1243	495	

Surrogates:	Spiked	Recovered	%Rec	Spiked Recovered	d %Rec	Limits
						======
3,4-Dinitrotoluene	2.4868	2.9520	119	2.4868	0	(48-143)

Notes

M = Manually Integrated

Signals Differ by More Than 40%

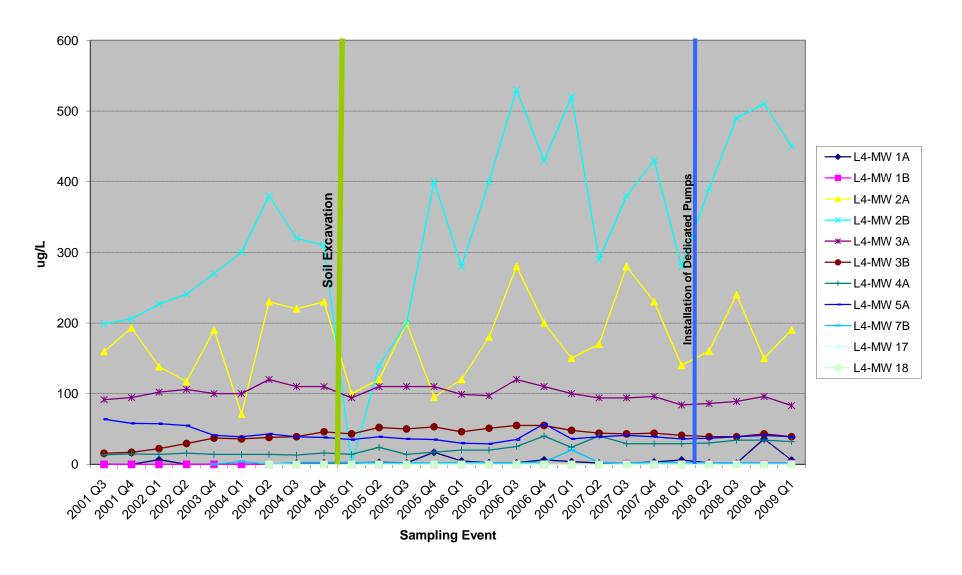
D = Operator Disabled Result

Signals Differ by More Than 50%

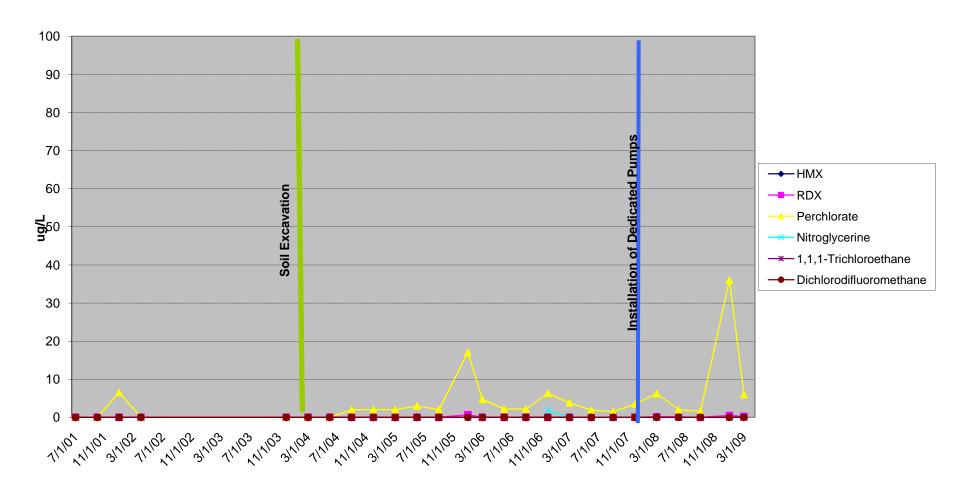
O = Over Calibration Range

Printed: 7/14/2009 3:05 PM

## **Landfill 4 Perchlorate Results**

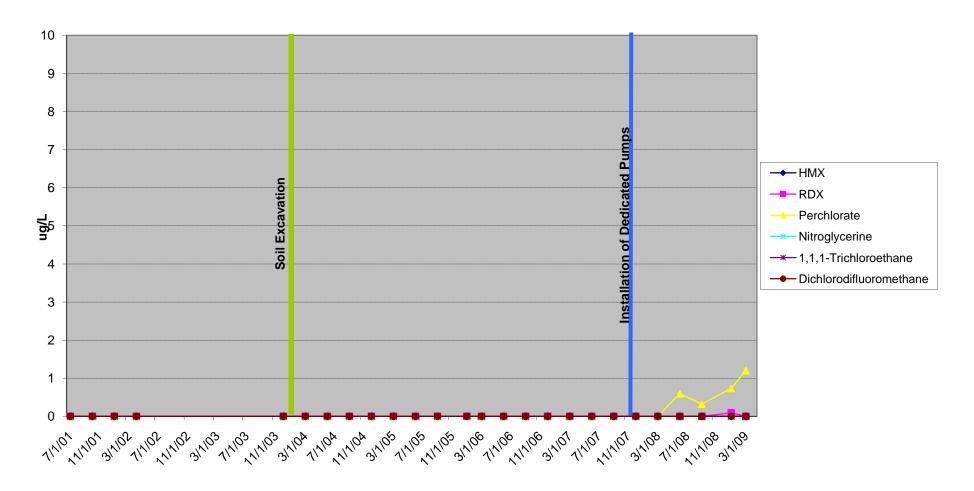


## L4-MW-1A



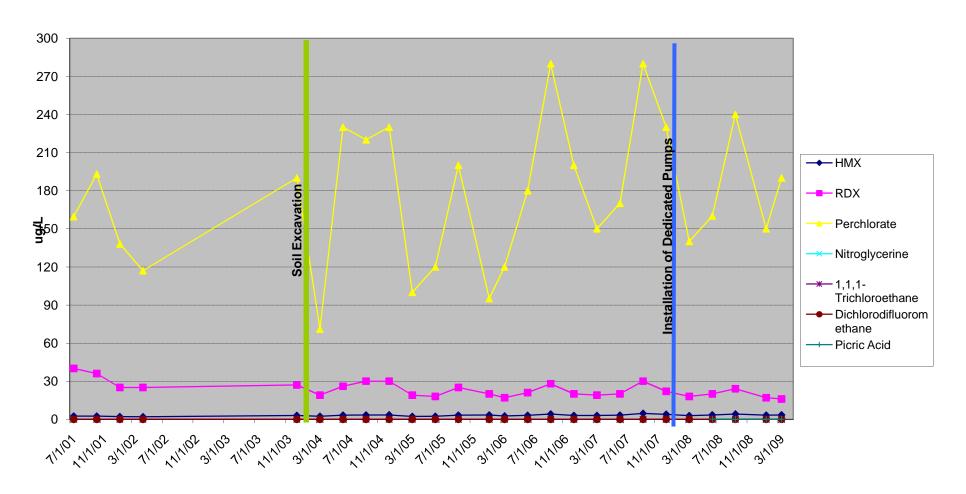
**Sampling Event** 

L4-MW-1B



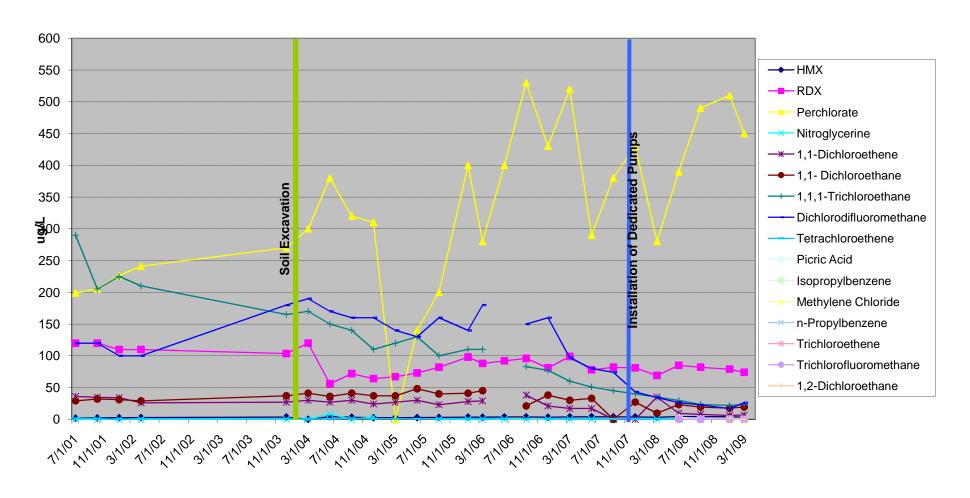
**Sampling Event** 

## L4-MW-2A



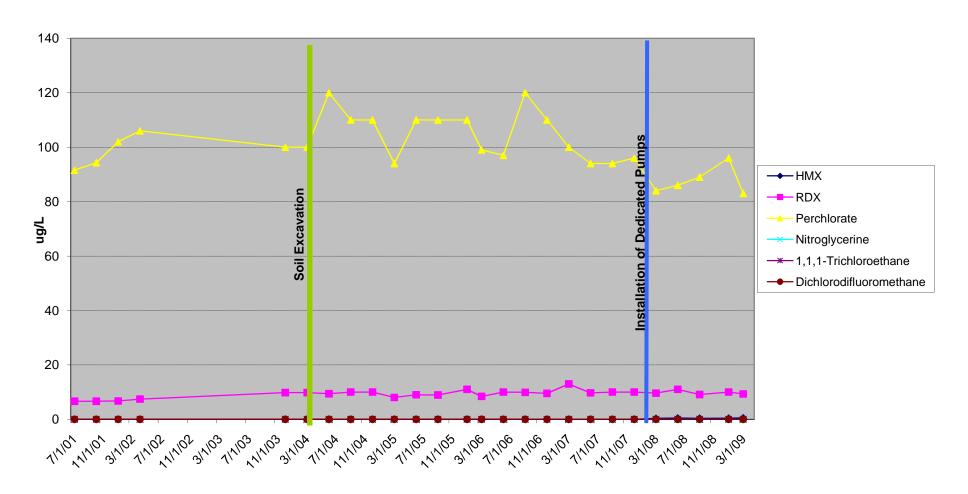
**Sampling Event** 

## L4-MW-2B



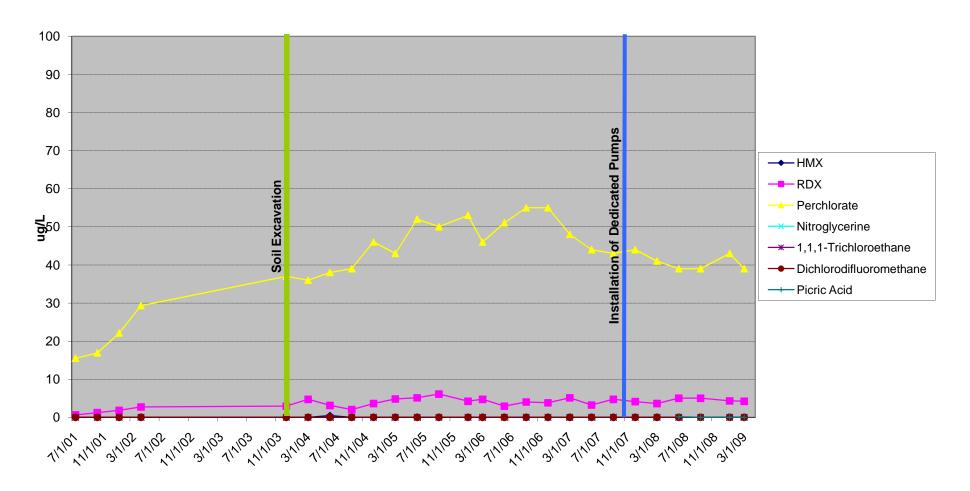
Sample Event

## L4-MW-3A



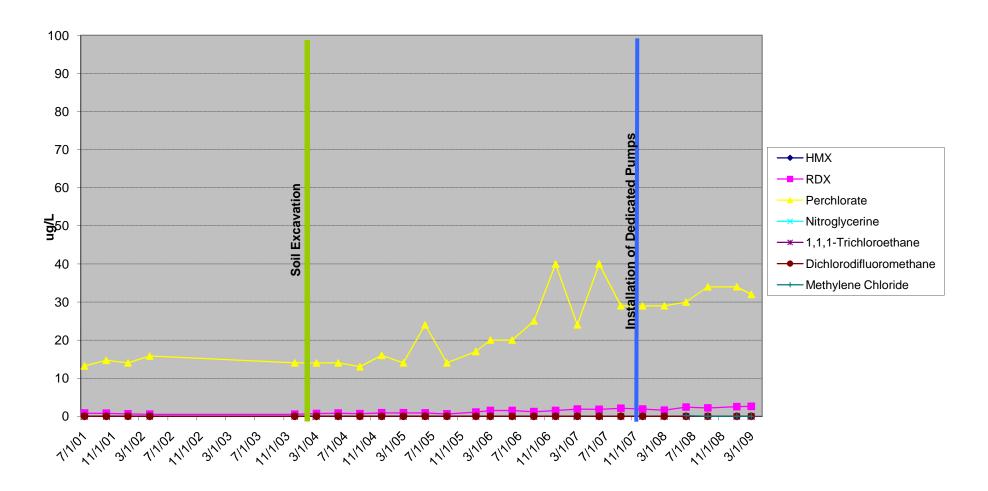
Sample Event

## L4-MW-3B



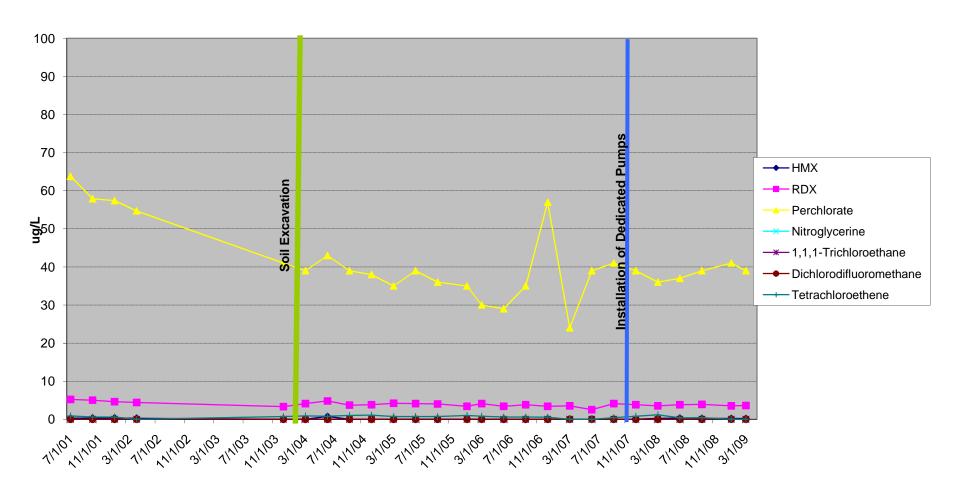
Sample Event

## L4-MW-4A



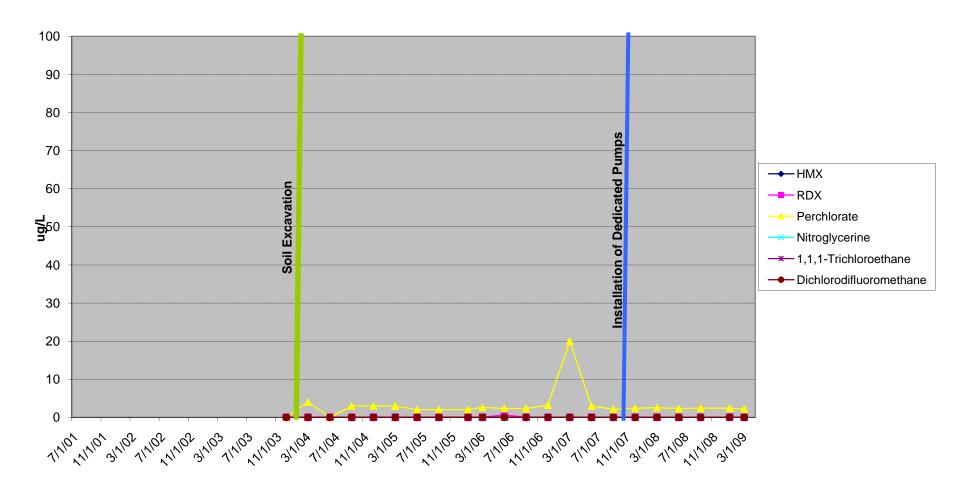
Sample Event

## L4-MW-5A



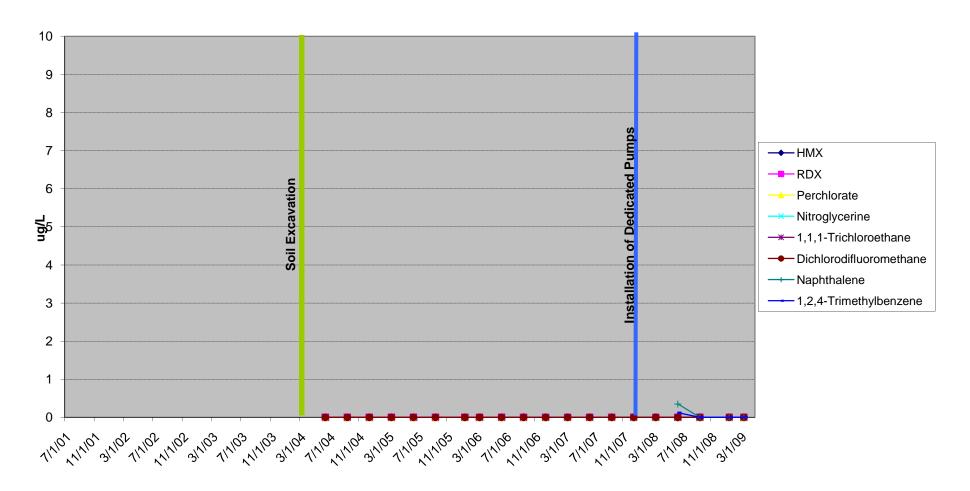
Sample Event

## **L4-MW-7B**



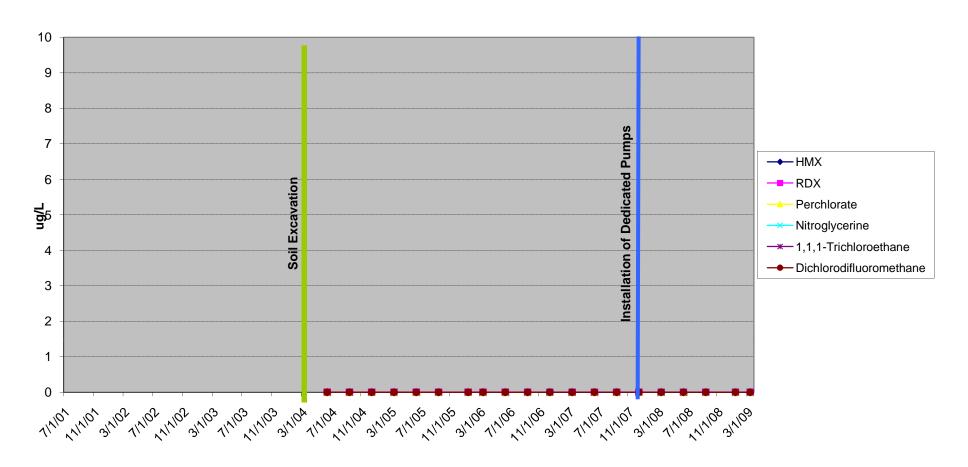
Sample Event

L4-MW-17



**Sample Event** 

L4-MW-18



**Sample Event**