

STATE OF
COLORADO

02144396

Fischer - DNR, Alex <alex.fischer@state.co.us>

FW: Walden (13081206)

1 message

James Hix <jhix@olssonassociates.com>

Thu, Aug 29, 2013 at 1:54 PM

To: "Fischer, Alex (Alex.Fischer@state.co.us)" <Alex.Fischer@state.co.us>

Alex,

Attached below is the TP Environmental/Trace Analysis response to my question about the difference in the DRO results that they obtained and what Accutest reported.

James

James W. Hix, PG | Olsson Associates

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TEL 303.237.2072 | DIR 303.374.3139 | CELL 303.589.1572 | FAX 303.237.2659

**From:** Mike Holder [mailto:mholder@tpenviro.com]**Sent:** Thursday, August 22, 2013 2:12 PM**To:** James Hix; George Rooney; Damon Wright; tmccormack@tpenviro.com**Subject:** Fwd: Walden (13081206)

FYI

Www.tpenviro.com

Begin forwarded message:

From: Blair Leftwich <bleftwich@traceanalysis.com>**Date:** August 22, 2013, 3:10:09 PM CDT**To:** Mike Holder <mholder@tpenviro.com>, Damon Wright <dwright@tpenviro.com>**Cc:** Liz Givens <lgivens@traceanalysis.com>, Dan Lokey <dlokey@traceanalysis.com>, Sheryl Spore <sspore@traceanalysis.com>, Mike Abel <mabel@traceanalysis.com>, James Taylor <jtaylor@traceanalysis.com>, James Ratcliff <jratcliff@traceanalysis.com>, Chase leftwich <chase.leftwich@traceanalysis.com>**Subject:** Re: Walden (13081206)

The main difference between 8015 B and D is that D actually formalized GRO and DRO by adding GRO and DRO standards and by pushing purge and trap for GRO. B is an earlier version where it was up to the labs to

modify the method by using gasoline and diesel as standards and using the total are count between the first peak and last peak of each peak for quantitation. B also left it up to the lab whether to use purge and trap for GRO or not. Labs not using purge and trap are basically running TX1005 and reporting C6-12 as GRO and >C12-28 as DRO. Labs reporting 8015B are supposed to show 8015 Mod if they modified the method using gasoline and diesel standards or do not use purge and trap for GRO. I do not think modified methods are certifiable. NELAP only certifies the Method number 8015 and not the version B or D, so if a lab is NELAP certified for 8015 GRO and DRO, it does not actually define how the lab is running the tests. The biggest differences between labs is how the samples are extracted, analyzed, standardized, and quantified. TraceAnalysis is NELAP accredited for GRO and DRO by 8015. We actually run version D and show it on the reports. We run purge and trap for GRO, like BTEX. DRO samples are extracted with pentane using sonication and analyzed by GC, FID, capillary column, and direct injection, basically the same extraction and analysis as TX1005. We use gasoline and diesel as standards. Labs using a different extraction, standards, quantitation, or analysis may have different results. Often the biggest difference between labs is because soil samples are difficult to split so each lab has the same sample. To give you an idea of what is acceptable variability: NELAP allowed 30%-165% recovery for DRO soil on the last unknown (theoretical value = 500 ppm, acceptable range 155-869 ppm, $869/155 \times 100 = 600\%$ variability); TCEQ allows a 50% variability in field duplicates; and in general NELAP allows labs $\pm 20\%$ standardization, $\pm 20\%$ extraction, and $\pm 20\%$ precision, which means that if a lab was at the bottom of those and the other lab was at the top of those, the labs could be 60% different and both meet QC requirements. Throw in sample variability of 50% and that would be 110% acceptable difference. One lab could have 100 ppm DRO and the other 1,100 ppm DRO.



Dr. Blair Leftwich, MPH, DSc
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From: "Liz Givens" <lgivens@traceanalysis.com>
To: "Blair Leftwich" <bleftwich@traceanalysis.com>
Sent: Thursday, August 22, 2013 12:28:47 PM
Subject: Fwd: Walden (13081206)

From: "Mike Holder" <mholder@tpenviro.com>
To: "Liz Givens" <lgivens@traceanalysis.com>, "Damon Wright" <dwright@tpenviro.com>
Sent: Thursday, August 22, 2013 9:36:53 AM
Subject: Fwd: Walden (13081206)

Liz,

Can we get info below.

Mike

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Begin forwarded message:

From: James Hix <jhix@olssonassociates.com>
Date: August 22, 2013, 9:24:59 AM CDT
To: Mike Holder <mholder@tpenviro.com>
Subject: RE: Walden (13081206)

Mike,

Is it possible to get the chromatograms for the DRO analyses from Trace Analysis, Inc.? I will request them from Accutest as well so that we can compare them. It looks like Trace Analysis was running an 8015D and Accutest ran the DRO by 8015B. I wouldn't think that there would be much difference in the methods, but depending on the extraction methods used it could make a big difference. Could you give me a call at (303) 237-2072.

I called and left a message for Alex Fischer – COGCC West Environmental Supervisor, but he is out this week.

James

James W. Hix, PG | **Olsson Associates**

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From: Mike Holder [mailto:mholder@tpenviro.com]
Sent: Thursday, August 15, 2013 2:54 PM
To: James Hix; George Rooney; Damon Wright; tmccormack@tpenviro.com
Subject: Fwd: Walden (13081206)

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Begin forwarded message:

From: "reports@traceanalysis.com" <reports@traceanalysis.com>
To: "mholder@tpenviro.com" <mholder@tpenviro.com>
Subject: Walden (13081206)

TraceAnalysis, Inc.

(attachments enclosed)

Work Order: 13081206
Contact Person: Mike Holder

Project Location: Walden, Colorado
Project Name: Walden
Project Number: 57-001

Note: To ensure you receive email, please add reports@traceanalysis.com to your address book.

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