~~1530.~~ 1513.26.046 / 1513.38.008

CONESTOGA-ROVERS
& ASSOCIATES

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Telephone: (949) 648-5200 Fax: (949) 648-5299
www.CRAworld.com

November 16, 2012

Reference No. 622237

Rec'd
11/26/12

Mr. Bruce Wanstall
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Suite 302
Juneau, Alaska 99801

Re: Annual 2012 Groundwater Monitoring Report
Chevron Site 82307
9203 Cessna Drive
Juneau, Alaska
ADEC File ID 1513.26.046

Dear Mr. Wanstall:

Conestoga-Rovers & Associates (CRA) is submitting this *Annual 2012 Groundwater Monitoring Report* for the site referenced above (Figure 1) on behalf of Chevron Environmental Management Company. CRA performed groundwater monitoring and sampling utilizing the Alaska Department of Environmental Conservation's (ADEC's) May 2010 *Draft Field Guidance*. The *Groundwater Elevation Map* is presented on Figure 2. Groundwater monitoring and sampling data are presented in Tables 1 and 2. CRA's monitoring data package is included as Attachment A. Lancaster Laboratories' September 25, 2012 *Type III Data Package* and September 24, 2012 *Analytical Results* are included as Attachment B. Site photos are included as Attachment C. Standard operating procedures for groundwater monitoring and sampling are included as Attachment D and the ADEC laboratory data review checklist and memorandum are included as Attachment E.

RESULTS OF ANNUAL 2012 EVENT

On July 18, 2012, CRA monitored and sampled the site well per the established schedule.

Results of the current monitoring event indicate the following:

- Depth to Groundwater 3.71 feet below grade

Results of the current sampling event are presented below in Table A:

TABLE A: GROUNDWATER ANALYTICAL DATA SUMMARY							
Well ID	*DRO (mg/l)*	*DRO w/SGC (mg/l)*	*GRO (mg/l)*	*Benzene (mg/l)*	*Toluene (mg/l)*	*Ethylbenzene (mg/l)*	*Total Xylenes (mg/l)*
Table C Cleanup Levels	*1.5*	*1.5*	*2.2*	*0.005*	*1.0*	*0.7*	*10*
MW-4	**15 J/12 J**	**25 J/7.1 J**	1.3 J/0.60 J	NA	NA	NA	NA

Notes:
DRO = Diesel Range Organics
GRO = Gasoline Range Organics
SGC = Silica-gel clean up
mg/L = milligrams per liter
J = Estimated Value
NA = Not Analyzed
x/y = Sample Results/Duplicate Results

Groundwater Geochemical Results
CRA collected field geochemical parameters and groundwater samples on July 18, 2012 to evaluate natural attenuation and site remediation. Temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), conductivity and pH were measured in the field (Attachment A). Groundwater samples were analyzed for carbon dioxide, sulfate, nitrite, nitrate, and alkalinity. The geochemical analytical results are presented in Table 2.

ADDITIONAL ACTIVITIES

Ozone System Maintenance
CRA installed an ozone injection system in monitoring well MW-4 on August 28, 2007 to reduce dissolved-phase DRO concentrations in groundwater. CRA upgraded the ozone emitter on May 10, 2010. During the monitoring event, CRA replaced one broken solar panel, after which, each individual solar panel and battery was tested to confirm proper operation. Individual battery output was approximately 13.5 volts per battery. Solar panel output was approximately 0.3 volts per panel. The system was inspected on July 18, 2012 and all components were found to be safe and operational. All implemented safety equipment (i.e., orange safety cones and snow poles) were intact and visible. CRA also removed and disposed of debris near MW-4.

CONCLUSIONS

Low concentrations of nitrate (less than 0.040 mg/L) and sulfate (2.1 mg/L) indicate hydrocarbon biodegradation is active. High alkalinity and a reducing environment also indicate a high level of hydrocarbon consumption. DRO and GRO concentrations have remained stable.

Alaska Qualified Personnel in accordance with *Title 18 Alaska Administrative Code (AAC) 78, Articles 2, 6, and 9* conducted all project work.

ANTICIPATED FUTURE ACTIVITIES

Groundwater Monitoring
CRA will continue annual monitoring and sampling and submit a groundwater monitoring and sampling report presenting the results.

Please contact Jim Schneider at (949) 648-5200 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Michael McDonald Jim Schneider, PG

MM/aa/5
Encl.

Figure 1	Vicinity Map
Figure 2	Groundwater Elevation Map
Table 1	Groundwater Analytical Results
Table 2	Geochemical Analytical Results
Attachment A	Monitoring Data Package
Attachment B	Laboratory Analytical Report
Attachment C	Site Photos
Attachment D	Standard Operating Procedures for Groundwater Monitoring and Sampling
Attachment E	ADEC Laboratory Data Review Checklist and Memorandum

cc: Dan Carrier, Chevron EMC *(electronic copy)*
Bev Niemann, Delta Western Environmental
Allen Hesse, Juneau International Airport

FIGURES

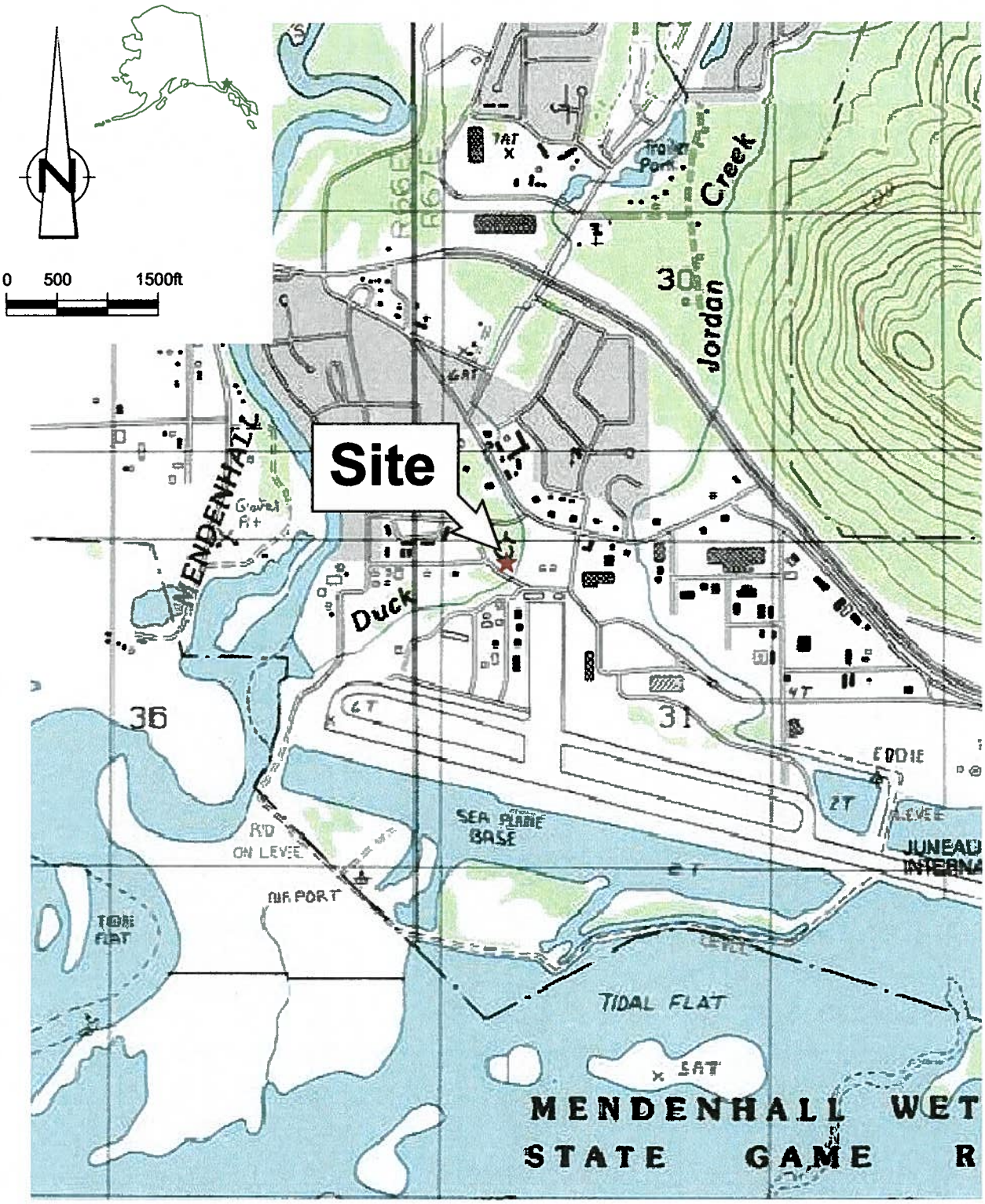

Figure 1

VICINITY MAP
FORMER DELTA WESTERN / CHEVRON BULK TERMINAL
CHEVRON SITE 82307
9203 Cessna Drive
Juneau, Alaska

622237-95(005)GN-EM001 OCT 22/2012

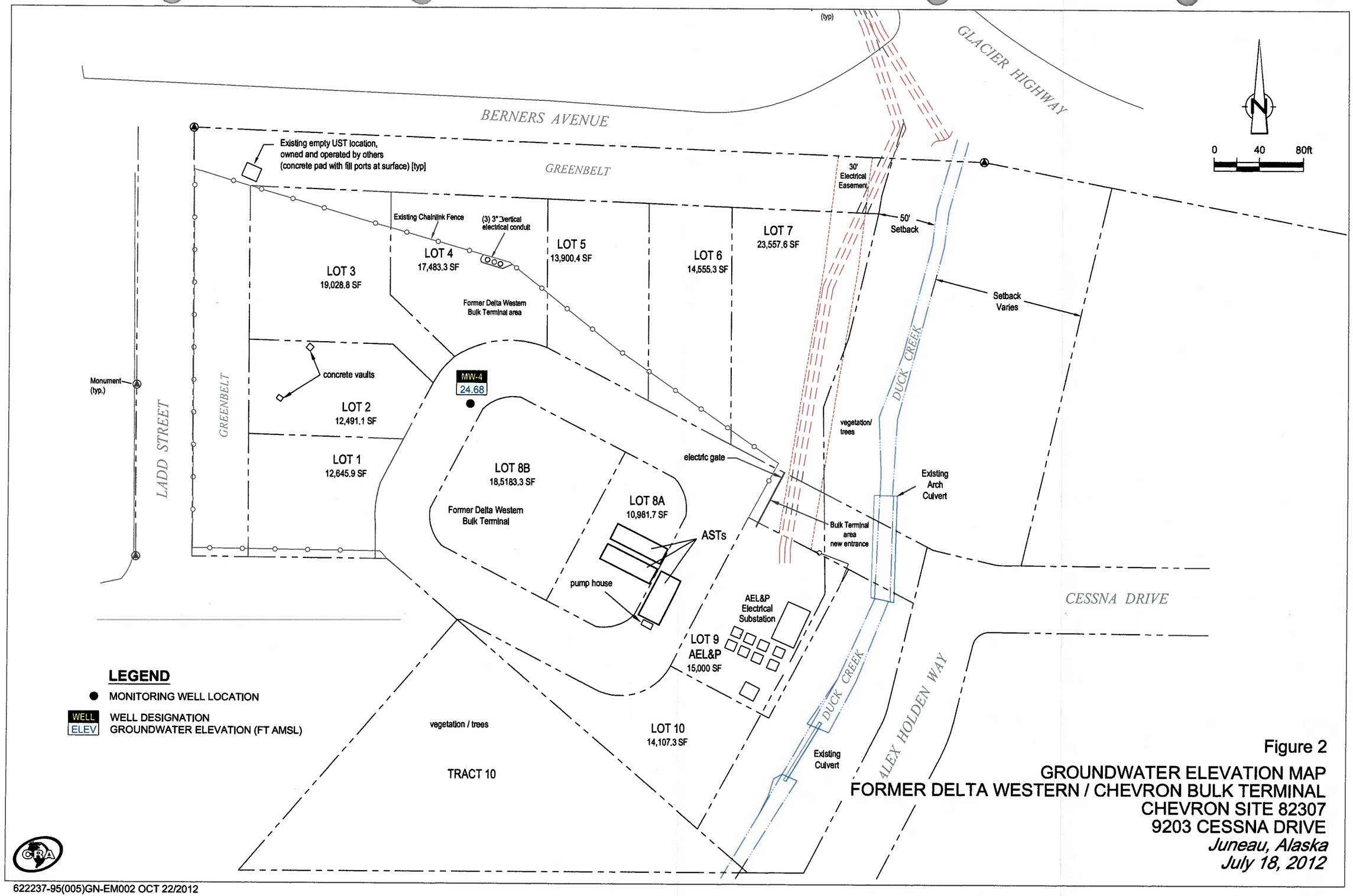

Figure 2
GROUNDWATER ELEVATION MAP
FORMER DELTA WESTERN / CHEVRON BULK TERMINAL
CHEVRON SITE 82307
9203 CESSNA DRIVE
Juneau, Alaska
July 18, 2012

622237-95(005)GN-EM002 OCT 22/2012

TABLES

TABLE 1

GROUNDWATER ANALYTICAL RESULTS
DELTA WESTERN/FORMER CHEVRON BULK TERMINAL 82307
9203 CESSNA DRIVE
JUNEAU, ALASKA

					HYDROCARBONS				PRIMARY VOCS				ADDITIONAL VOC'S
Location	*Date*	*TOC*	*DTW*	*GWE*	*RRO*	*DRO*	*DRO-SG*	*GRO*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*VOCs*
	Units	*ft msl*	*ft bTOC*	*ft msl*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
ADEC Groundwater Cleanup Levels [a]					*1.1*	*1.5*	*1.5*	*2.2*	*0.005*	*1.0*	*0.7*	*10.0*	
MW-1	06/06/2000	25.19	8.55	16.64	<0.75	0.269	-	<0.05	<0.0005	<0.0005	<0.0005	<0.001	ND
MW-1	12/09/2000	25.19	7.72	17.47	<0.75	0.201	-	<0.05	0.00025	0.00082	<0.0005	<0.001	-
MW-1	03/24/2001	25.19	8.48	16.71	-	0.298	-	<0.05	0.00214	<0.0005	<0.0005	<0.001	-
MW-1	06/19/2001	25.19	8.93	16.26	-	0.121	-	<0.05	0.0002	<0.0005	<0.0005	<0.001	-
MW-1	06/17/2002	25.19	8.60	16.59	-	0.181	-	<0.05	0.00115	<0.0005	<0.0005	<0.001	-
MW-1	12/11/2002	25.19	7.53	17.66	-	0.1	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
MW-1	06/25/2003	25.19	4.72	20.47	-	0.1	-	<0.05	0.00457	<0.0005	<0.0005	<0.001	-
MW-1	12/09/2003	25.19	8.43	16.76	-	0.139	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
MW-1	05/18/2004	25.19	9.38	15.81	-	0.391	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
MW-1	05/27/2005								Well Destroyed				
							-						
MW-2	06/06/2000	28.73	13.20	15.53	<0.75	0.22	-	<0.05	<0.0005	<0.0005	<0.0005	<0.001	ND
MW-2	12/09/2000	28.73	12.12	16.61	<0.75 / <0.75	0.22	-	<0.05 / <0.05	0.000395 / 0.000353	0.000951 / 0.001	<0.0005 / <0.0005	<0.001 / 0.001	-
MW-2	03/24/2001	28.73	13.28	15.45	-	0.176	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
MW-2	06/19/2001	28.73	13.72	15.01	-	0.274	-	0.058	0.000213	<0.0005	<0.0005	0.0011	-
MW-2	06/17/2002	28.73	13.13	15.60	-	0.393	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
MW-2	12/11/2002	28.73	9.00	19.73	-	0.159	-	<0.05	<0.0002	<0.0005	<0.0005	0.001	-
MW-2	06/25/2003	28.73	14.34	14.39	-	0.209	-	0.08	<0.0002	<0.0005	<0.0005	<0.001	-
MW-2	12/09/2003	28.73	13.15	15.58	-	0.132	-	<0.05	<0.0002	<0.0005	<0.0005	0.001	-
MW-2	05/18/2004	28.73	9.40	19.33	-	0.391	-	<0.05	<0.0002	0.00062	<0.0005	0.00101	-
MW-2	05/27/2005								Well Destroyed				
							-						
MW-3	06/06/2000	28.21	12.09	16.12	<0.75	0.144	-	<0.05	<0.0005	<0.0005	<0.0005	<0.001	ND
MW-3	12/10/2000	28.21	11.29	16.92	<0.75	0.439	-	<0.05	0.000223	<0.0005	<0.0005	<0.001	-
MW-3	03/24/2001	28.21	12.11	16.10	-	0.188	-	<0.05 / <0.05	<0.0002 / <0.0002	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	-
MW-3	06/19/2001	28.21	12.53	15.68	-	0.163	-	<0.05 / <0.05	<0.0002 / <0.0002	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	-
MW-3	06/17/2002	28.21	12.18	16.03	-	0.105	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
MW-3	12/11/2002	28.21	11.00	17.21	-	0.122	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
MW-3	06/25/2003	28.21	13.26	14.95	-	0.1	-	<0.05	0.00067	<0.0005	<0.0005	<0.001	-
MW-3	12/09/2003	28.21	11.98	16.23	-	0.186	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
MW-3	05/18/2004	28.21	12.97	15.24	-	0.391	-	<0.05	<0.0002	<0.0005	0.000528	0.00162	-
MW-3	05/27/2005								Well Destroyed				
MW-4	06/19/2001	28.39	4.08	24.31	-	**22.2**	-	0.948	0.00148	<0.00125	0.00398	0.0821	-
MW-4	06/17/2002	28.39	4.17	24.22	-	**33.2**	-	1.05	0.001	<0.0005	0.0517	0.0979	-
MW-4	12/11/2002	28.39	2.25	26.14	-	**29.3**	-	0.921	**0.0091**	0.00125	0.0448	0.088	-
MW-4	06/25/2003	28.39	4.14	24.25	-	**22.2**	-	0.833	0.00128	0.00107	0.0485	0.0795	-
MW-4	12/09/2003	28.39	3.66	24.73	-	**27.5**	-	0.537	0.00149	<0.0025	0.0517	0.0547	-
MW-4	05/18/2004	28.39	4.74	23.65	-	**12.8**	-	2.2	0.00139	<0.001	0.0492	0.0786	-
MW-4	05/27/2005	28.39	5.50	22.89	-	**24**	-	0.51 / 0.52	0.0008 / 0.0008	<0.0005 / <0.0005	0.037 / 0.038	0.04 / 0.041	-
MW-4	06/01/2006	28.39	5.80	22.59	-	**26**	-	0.55	<0.0005	<0.0005	0.035	0.045	-
MW-4	08/28/2007	28.39	4.18	24.21	-	**17**	-	0.5 / 0.5	<0.001 / <0.001	<0.001 / <0.001	0.02 / 0.02	0.05 / 0.04	-

TABLE 1

GROUNDWATER ANALYTICAL RESULTS
DELTA WESTERN/FORMER CHEVRON BULK TERMINAL 82307
9203 CESSNA DRIVE
JUNEAU, ALASKA

					HYDROCARBONS				PRIMARY VOCS				ADDITIONAL VOC'S
Location	*Date*	*TOC*	*DTW*	*GWE*	*RRO*	*DRO*	*DRO-SG*	*GRO*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*VOCs*
	Units	*ft msl*	*ft bTOC*	*ft msl*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*
ADEC Groundwater Cleanup Levels [a]					*1.1*	*1.5*	*1.5*	*2.2*	*0.005*	*1.0*	*0.7*	*10.0*	
MW-4	06/24/2008	28.39	5.20	23.19	-	**37**	-	-	<0.001 / <0.001	0.001 / 0.001	0.02 / 0.02	0.03 / 0.03	-
MW-4	08/25/2008	28.39	2.23	26.16	-	9.12	-	-	<0.0005 / <0.0005	<0.0005 / <0.0005	0.0161 / 0.0142	0.0264 / 0.0211	-
MW-4	06/23/2009	28.39	6.41	21.98	-	12.2 / 13.1	-	0.578 / 0.476	-	-	-	-	-
MW-4	05/11/2010	28.39	4.44	23.95	-	17 / 13	-	0.57 J / 0.81 J	-	-	-	-	-
MW-4	05/26/2011	28.39	4.46	23.93	-	19 / 24	-	0.54 / 0.56	-	-	-	-	-
MW-4	07/18/2012	28.39	3.71	24.68	-	15 J / 12 J	25 J / 7.1 J	1.3 J / 0.60 J	-	-	-	-	-
Trip Blank	12/09/2000	-	-	-	-	-	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
Trip Blank	03/24/2001	-	-	-	-	-	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
Trip Blank	06/19/2001	-	-	-	-	-	-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
Trip Blank-1	12/09/2003	-	-	-	-	0.165	-	<0.05 / <0.05	<0.0002 / <0.0002	<0.0005 / <0.0005	<0.0005 / <0.0005	<0.001 / <0.001	-
Trip Blank-2	12/09/2003						-	<0.05	<0.0002	<0.0005	<0.0005	<0.001	-
Trip Blank	05/18/2004	-	-	-	-	-	-	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	-
Trip Blank	06/01/2006	-	-	-	-	-	-	<0.01	<0.0005	<0.0005	<0.0005	<0.0015	-
Trip Blank	08/28/2007	-	-	-	-	-	-	<0.01	<0.001	<0.001	<0.001	<0.002	<0.0005
Trip Blank	06/24/2008	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.002	-
Trip Blank	08/25/2008	-	-	-	-	-	-	-	<0.0005	<0.0005	<0.0005	<0.001	-
Trip Blank	06/23/2009	-	-	-	-	-	-	<0.0100	-	-	-	-	-
Trip Blank	05/11/2010	-	-	-	-	-	-	<0.010	-	-	-	-	-
Trip Blank	07/18/2012	-	-	-	-	-	-	<0.010	-	-	-	-	-

Notes and Abbreviations
VOCs = Volatile Organic Compounds
TOC = Top of Casing
DTW = Depth to Water
GWE = Groundwater Elevation
RRO = Residual Range Organics AK103
DRO = Diesel Range Organics by Alaska Series Method AK102
GRO = Gasoline Range Organics by Alaska Series Method AK101
Benzene, Toluene, Ethylbenzene, and Total Xylenes by Environmental Protection Agency (EPA) Method 8021B or 8260B
Total Xylenes = Sum of m-, o-, and p-xylenes
ft msl = Feet Above Mean Sea Level
ft bTOC = Feet Below Top of Casing
mg/L = Milligrams per Liter
ADEC = Alaska Department of Environmental Conservation
[a] = Levels established in ADEC Table C Groundwater Cleanup Levels (18 AAC 75.345)
<x = Constituent not detected above x milligrams per liter
- = Not Measured/Not Analyzed
ND = Not detected above laboratory method detection limits
J = Estimated value
x / y = Sample Results / Duplicate Results
BOLD = Indicates concentration above the ADEC Table C Groundwater Cleanup Level

TABLE 2

GEOCHEMICAL ANALYTICAL RESULTS
DELTA WESTERN/FORMER CHEVRON BULK TERMINAL 82307
9203 CESSNA DRIVE
JUNEAU, ALASKA

		GEOCHEMICAL PARAMETERS													
Location	*Date*	*Ferrous Iron*	*Nitrite/Nitrate*	*Nitrate*	*Nitrite*	*Carbon Dioxide*	*Alkalinity, Total (as CaCO3)*	*Alkalinity, Bicarbonate*	*Alkalinity, Carbonate*	*Alkalinity, Hydroxide*	*Sulfate*	*DO**	*ORP**	*pH**	*Conductivity**
	Units	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mg/L*	*mgCaCO3/L*	*mgCaCO3/L*	*mgCaCO3/L*	*mgCaCO3/L*	*mg/L*	*mg/L*	*mV*	*s.u.*	*µS/cm*
MW-4	06/24/2008	--	--	--	--	--	--	--	--	--	--	--	--	6.3	393.5
MW-4	08/26/2008	3.9	0.531	--	--	81.8	149	149	ND	ND	11.7	--	--	6.65	383.8
MW-4	06/23/2009	--	--	--	--	--	--	--	--	--	--	--	--	6.33	--
MW-4	10/12/2009	1.6*	0.0910 J	0.12*	--	--	137	137	<0.640	<0.640	0.920 J	2.81	-74.8	6.91	233
MW-4	05/11/2010	--	ND	<0.040 J	<0.015	--	--	113 / 119	<0.46	--	3.5 J / 3.6 J	24.38	-24.3	6.63	337
MW-4	05/26/2011	--	--	<0.040 J	<0.015	89	127	--	--	--	2.4 J	31.5	-176.4	6.40	279
MW-4	07/18/2012	--	--	<0.040 J	0.047 J	50	103	--	--	--	2.1 J	13.63	-47	5.9	264

Notes and Abbreviations

CaCO3 = Calcium Carbonate
DO = Dissolved Oxygen
ORP = Oxygen Reduction Potential
* = Field measurement during sample collection
mg/L = Milligrams per Liter
mV = millivolts
s.u. = Standard unit
µS/cm = microsiemens per centimeter
ND = Not detected above laboratory method detection limits
<x = Constituent not detected above x
-- = Not Measured/Not Analyzed
J = Estimated value
x / y = Sample Results / Duplicate Results

ATTACHMENT A

MONITORING DATA PACKAGE

WATER LEVEL RECORD

PROJECT NAME: Chevron 82307 LOCATION: 9203 Cessna Dr. Juneau, AK

JOB NO.: 622237 DATE: 7-18-2012

CLIENT: Chevron EMC ENGINEER/GEOLOGIST: Joel Chapman

OBSERVATION WELL	TOP OF CASING ELEVATION A		DEPTH TO WATER B		WATER LEVEL ELEVATION A-B	
	feet	metres	feet	metres	feet	metres
MW-4	28.39	—	3.71	—	24.68	—

CRA

WELL PURGING FIELD INFORMATION FORM

JOB# 6223237

SITE/PROJECT NAME: Chevron 82307

WELL# MW-4

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL. IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
07/18/12	07/18/12	0.8	6.0

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X- — PURGING OTHER (SPECIFY)
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERRA®	
SAMPLING DEVICE		C - BLADDER PUMP	F - DIPPER BOTTLE		X- — SAMPLING OTHER (SPECIFY)
PURGING MATERIAL	A	A - TEFLON	D - PVC		X- — PURGING OTHER (SPECIFY)
		B - STAINLESS STEEL	E - POLYETHYLENE		
SAMPLING MATERIAL		C - POLYPROPYLENE			X- — SAMPLING OTHER (SPECIFY)
TUBING PURGING	—	A - TEFLON	D - POLYPROPYLENE	F - SILICONE	X- — PURGING OTHER (SPECIFY)
		B - TYGON	E - POLYETHYLENE	G - COMBINATION TEFLON/POLYPROPYLENE	
TUBING SAMPLING	—	C - ROPE X- (SPECIFY)			X- — SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45	—	A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	2839 (m/ft)	GROUNDWATER ELEVATION	2468 (m/ft)	
DEPTH TO WATER	371 (m/ft)	WELL DEPTH	934 (m/ft)	

pH	TURBIDITY	CONDUCTIVITY	DO (mg/L)	ORP (mV)	SAMPLE TEMPERATURE
6.3 (std)	95 (ntu)	118 (µm/cm) AT 25°C	10.02	-66	23.4 (°C)
7.3 (std)	777 (ntu)	234 (µm/cm) AT 25°C	11.03	-106	16.6 (°C)
6.7 (std)	527 (ntu)	251 (µm/cm) AT 25°C	13.52	-86	14.2 (°C)
6.4 (std)	488 (ntu)	252 (µm/cm) AT 25°C	13.56	-73	13.8 (°C)
6.0 (std)	467 (ntu)	252 (µm/cm) AT 25°C	13.35	-50	13.3 (°C)
5.9	212	264	13.63	-47	12.6

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: slight diesel COLOR: brown TURBIDITY:

WEATHER CONDITIONS: WIND SPEED n/a DIRECTION n/a PRECIPITATION Y (N) OUTLOOK 30% chance

SPECIFIC COMMENTS

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

CRA

DATE: 7-18-2012 PRINT: Joel Chapman SIGNATURE:

ATTACHMENT B

LABORATORY ANALYTICAL REPORT

ATTACHMENT C

SITE PHOTOS

OZONE INJECTION SYSTEM

DAMAGED SOLAR PANEL

REPAIRED SOLAR PANEL

SITE PHOTOS
FORMER DELTA WESTERN / CHEVRON BULK TERMINAL
CHEVRON SITE 82307
9203 Cessna Drive
Juneau, Alaska

(EM) I:\Chevron\6222--\622237 8-2307 Juneau\622237 PHOTOS\622237-PHOTOS.DWG

ATTACHMENT D

STANDARD OPERATING PROCEDURES
FOR GROUNDWATER MONITORING AND SAMPLING

CONESTOGA-ROVERS
& ASSOCIATES

STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Conestoga-Rovers & Associates' specific field procedures are summarized below.

Groundwater Monitoring

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain separate phase hydrocarbons (SPH) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of SPH, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be monitored last. In wells with a history of SPH, the SPH level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water.

Groundwater Sampling

Purge Sampling

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of SPH or floating SPH globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no SPH is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or Wattera™) or down-hole pump (e.g. Grundfos™ or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until a minimum of three groundwater parameters have stabilized for three consecutive readings. Temperature, dissolved oxygen (DO), pH, conductivity, and oxidation-reduction potential (ORP) shall be measured and recorded. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, turbidity shall also be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged and allowed to recharge to 80% of the pre-purging static water level, or if the well is slow to recharge, after waiting a minimum of 2 hours. Groundwater samples shall be collected using clean disposable bailers or

pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New nitrile gloves and disposable tubing or bailers shall be used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

No Purge Sampling
Groundwater samples shall be collected using clean disposable bailers (PVC or Teflon) and decanted into clean containers supplied by the analytical laboratory. New nitrile gloves shall be used for sampling each well.

HydraSleeve Sampling
HydraSleeve sampling devices shall be deployed a minimum of 24 hours prior to sampling to allow for equilibration and stabilization.

For wells without a previously deployed HydraSleeve sampling device, the groundwater monitoring SOP shall be followed to determine water column length. For wells with a previously deployed HydraSleeve sampling device, the depth to groundwater shall be measured prior to HydraSleeve removal. The depth to well bottom shall be measured prior to new HydraSleeve deployment.

The top of the HydraSleeve sampling device shall be set no more than 3 feet below static groundwater level. If the length of the water column does not allow for this, a top weight bottom set will be employed. Groundwater samples collected using clean disposable HydraSleeve sampling devices will be decanted into clean containers supplied by the analytical laboratory. New nitrile gloves and HydraSleeve sampling devices will be used for sampling each well.

Following sampling, a new HydraSleeve sampling device shall be deployed for the next sampling event if applicable.

Sample Handling

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. One copy of the COC shall be kept in the QA/QC file and another copy shall be retained in the project file. Information on the COC shall consist of the project name and

number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

Well Development

Wells shall be developed using a combination of groundwater surging and extraction. A surge block shall be used to swab the well and agitate the groundwater in order to dislodge any fine sediment from the sand pack. After approximately ten minutes of swabbing the well, groundwater shall be extracted from the well using a bailer, pump and/or reverse air-lifting through a pipe to remove the sediments from the well. Alternating surging and extraction shall continue until the sediment volume in the groundwater (i.e. turbidity) is negligible, which typically requires extraction of approximately ten well-casing volumes of groundwater. Preliminary well development usually is performed during well installation prior to placing the sanitary surface seal to ensure sand pack stabilization. Well development that is performed after surface seal installation, should occur 72 hours after seal installation to ensure that the cement has had adequate time to set.

Waste Handling and Disposal

Groundwater extracted during development and sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums. Each drum shall be labeled with the contents, date of generation, generator identification and consultant contact. If hydrocarbon concentrations in the purged groundwater are below ADEC cleanup levels or the site is in a remote area (pending ADEC approval) groundwater will be discharged to the ground surface, at least 100 feet from the nearest surface water body.

ATTACHMENT E

ADEC LABORATORY DATA REVIEW CHECKLIST AND MEMORANDUM

Laboratory Data Review Checklist

Completed by: J Cloud

Title: Project Chemist Date: October 11, 2012

CS Report Name: Annual 2012 Groundwater Monitoring and Sampling Report Report Date: 9/24/12

Consultant Firm: Conestoga-Rovers & Associates

Laboratory Name: Lancaster Laboratories Laboratory Report Number: 1323403

ADEC File Number: 1513.26.046 ADEC RecKey Number:

1. Laboratory
   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
      X Yes ☐ No ☐NA (Please explain.) Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?
      ☐Yes ☐ No X NA (Please explain.) Comments:

      Samples not transferred

2. Chain of Custody (COC)
   a. COC information completed, signed, and dated (including released/received by)?
      X Yes ☐ No ☐NA (Please explain.) Comments:

   b. Correct analyses requested?
      X Yes ☐ No ☐NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation
   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
      X Yes ☐ No ☐NA (Please explain.) Comments:

b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

X Yes ☐ No ☐NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?

X Yes ☐ No ☐NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?

☐Yes ☐ No X NA (Please explain.) Comments:

No discrepancies

e. Data quality or usability affected? (Please explain.)

Comments:

None

4. Case Narrative

a. Present and understandable?

X Yes ☐ No ☐NA (Please explain.) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

X Yes ☐ No ☐NA (Please explain.) Comments:

c. Were all corrective actions documented?

X Yes ☐ No ☐NA (Please explain.) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

None

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

X Yes ☐ No ☐NA (Please explain.) Comments:

b. All applicable holding times met?
☐Yes X No ☐NA (Please explain.) Comments:

Nitrate for sample MW-4-W was analyzed outside of the method specified hold time.

c. All soils reported on a dry weight basis?
☐Yes ☐ No X NA (Please explain.) Comments:

No soils

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?
X Yes ☐ No ☐NA (Please explain.) Comments:

e. Data quality or usability affected?
Comments:

The DRO result for sample MW-4-W was lower than the DRO w/ sgc result. The DRO and DRO w/ sgc results for sample MW-4-W should be considered estimated.

6. <u>QC Samples</u>
   a. Method Blank
      i. One method blank reported per matrix, analysis and 20 samples?
      X Yes ☐ No ☐NA (Please explain.) Comments:

      ii. All method blank results less than PQL?
      X Yes ☐ No ☐NA (Please explain.) Comments:

      iii. If above PQL, what samples are affected?
      Comments:

No affected samples

      iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?
      ☐Yes ☐ No X NA (Please explain.) Comments:

No affected samples

      v. Data quality or usability affected? (Please explain.)
      Comments:

None

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

X Yes ☐ No ☐NA (Please explain.) Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

X Yes ☐ No ☐NA (Please explain.) Comments:

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

☐Yes X No ☐NA (Please explain.) Comments:

Two method AK102 LCS/LCSD sets had low DRO recoveries.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

X Yes ☐ No ☐NA (Please explain.) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Samples MW-4-W MW-4-WD

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

X Yes ☐ No ☐NA (Please explain.) Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

The DRO results for samples MW-4-W and MW-4-WD should be considered estimated.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?

X Yes ☐ No ☐NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

X Yes ☐ No ☐NA (Please explain.) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

☐Yes ☐ No X NA (Please explain.) Comments:

No failed surrogates

iv. Data quality or usability affected? (Use the comment box to explain.)

Comments:

None

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

X Yes ☐ No ☐NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

X Yes ☐ No ☐NA (Please explain.) Comments:

iii. All results less than PQL?

X Yes ☐ No ☐NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

No affected samples

v. Data quality or usability affected? (Please explain.)

Comments:

None

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?
X Yes ☐ No ☐NA (Please explain.) Comments:

ii. Submitted blind to lab?
X Yes ☐ No ☐NA (Please explain.) Comments:

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where R_1 = Sample Concentration
R_2 = Field Duplicate Concentration

☐Yes X No ☐NA (Please explain.) Comments:

Samples MW-4-W and MW-4-WD had high GRO and DRO w/ sgc field duplicate results.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The GRO and DRO w/ sgc results for samples MW-4-W and MW-4-WD should be considered estimated.

f. Decontamination or Equipment Blank (If not used explain why).

☐Yes ☐ No X NA (Please explain.) Comments:

Not collected

i. All results less than PQL?

☐Yes ☐ No X NA (Please explain.) Comments:

Not collected

ii. If above PQL, what samples are affected?

Comments:

Not collected

iii. Data quality or usability affected? (Please explain.)

Comments:

Not collected

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)
   a. Defined and appropriate?
      X Yes ☐ No ☐NA (Please explain.) Comments:

Laboratory Report
Quality Assurance Checklist - Compliance Review

Project Summary

Facility/Project No.:	8-2307/622237
Project Name:	9203 Cessna Dr - Juneau, AK
Report Type:	Standard
Project Manager:	Jim Schneider

Analytical Laboratory

Laboratory:	Lancaster
Report I.D.:	1323403
Report Date:	9/24/2012
Sample Collection Date:	7/18/2012

Laboratory Report and Compliance Review

HT Met?	Yes	[No]	If no, explain:	See Comments
All Requested Analyses Included	[Yes]	No	If no, explain:	
Lab Used Analytical Method Requested:	[Yes]	No	If no, explain:	
Lab Met Requested Detection Limits:	[Yes]	No	If no, explain:	
Reported QC acceptable:	Yes	[No]	If no, explain:	See Comments

Field Blanks:	Type	Trip blank	Detections	ND
Field Duplicates:	Location	MW-4-W/MW-4-WD	RPD < 50%?	No

Comments: Nitrate for sample MW-4-W was analyzed outside of the method specified hold time. The nitrate result for sample MW-4-W should be considered estimated. Two method AK102 LCS/LCSD sets had low DRO recoveries. The DRO results for samples MW-4-W and MW-4-WD should be considered estimated. Samples MW-4-W and MW-4-WD had high GRO and DRO w/ sgc field duplicate results. The GRO and DRO w/ sgc results for samples MW-4-W and MW-4-WD should be considered estimated. The DRO result for sample MW-4-W was lower than the DRO w/ sgc result. The DRO and DRO w/ sgc results for sample MW-4-W should be considered estimated.

Reviewed By: J Cloud

Date: 10/3/2012

CONESTOGA-ROVERS & ASSOCIATES

20818 44th Ave W, Suite 190
Lynnwood, WA 98036
Telephone: (425) 563-6515 Fax: (425) 563-6599
www.CRAworld.com

MEMORANDUM

TO: ADEC

REF. NO.: 622237

FROM: Jeffrey Cloud

DATE: October 11, 2012

CC: Jim Schneider

Send via E-Mail and U.S. Mail

RE: **QA/QC Review**
ChevronTexaco Site # 82307
Job #1323403
July 2012

INTRODUCTION

Groundwater samples were submitted to Lancaster Laboratories, located in Lancaster, Pennsylvania. Samples were analyzed for the methods requested on the Chain of Custody.

A full Level III data package was received from Lancaster Laboratories. The final results and supporting quality assurance/quality control (QA/QC) data were reviewed. Evaluation of the data was based on information obtained from the Chain of Custody forms, finished report forms, blank data, and spike recoveries.

QA/QC REVIEW

All samples were prepared and/or analyzed within the required holding times with one exception. Nitrate for sample MW-4-W was analyzed outside of the method specified hold time. The nitrate result or sample MW-4-W should be considered estimated. All samples were properly preserved and cooled after collection.

All appropriate samples and blanks were spiked with surrogate compounds prior to sample preparation and/or analysis in accordance with the organic methods. All surrogate spike recoveries met the associated method criteria indicating adequate analytical efficiency.

The DRO result for sample MW-4-W was lower than the DRO w/ sgc result. The DRO and DRO w/ sgc results for sample MW-4-W should be considered estimated.

Method blanks were prepared and analyzed with the samples for all parameters. All blank results were non-detect for the analytes of interest.

Laboratory control samples (LCS) were analyzed for all parameters. LCS for methods AK101 and AK102 were analyzed in duplicate. All recoveries were within required control limits showing adequate analytical accuracy and precision (where applicable) with a few exceptions. Two method AK102 LCS/LCSD sets had low DRO recoveries. The DRO results for samples MW-4-W and MW-4-WD should be considered estimated.

Matrix spikes (MS) were prepared and analyzed for methods 8015, 300.0, 353.2 and 2320. The MS for method 8015 was analyzed in duplicate. All recoveries were within required control limits showing adequate analytical accuracy and precision (where applicable). Precision, for methods AK101 and AK102, was determined to be acceptable based on LCS/LCSD recoveries. Precision, for methods 300.0, 353.2 and 2320, was determined to be acceptable based on laboratory duplicate recoveries.

Trip blanks were collected and analyzed with the investigative samples for all volatile parameters. All trip blank results were non-detect for the compounds of interest.

A field duplicate was collected and submitted blind to the laboratory. The sample ID was MW-4-W and its duplicate was MW-4-WD. A comparison of the results showed good analytical and sampling precision with a few exceptions. Samples MW-4-W and MW-4-WD had high GRO and DRO w/ sgc field duplicate results. The GRO and DRO w/ sgc results for samples MW-4-W and MW-4-WD should be considered estimated.

CONCLUSION

Based on the QA/QC review, the data submitted were judged to be acceptable for use with the qualifications noted.

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2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Type III Data Package

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

Project: 82307
Water Samples
Collected on 07/18/12

SDG# AKF94

GROUP	SAMPLE NUMBERS
1323403	6727319-6727321

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-08A-TX

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date: 09/25/2012**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Natalie Luciano at Ext. 1881.

Total Number of Pages 260

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Table of Contents for SDG# AKF94

SDG# AKF94

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Sample Reference List for SDG Number AKF94 with a Data Package Type of III

10880 - ChevronTexaco

Project: 82307

Lab Sample Number	Lab Sample Code	Client Sample Description
6727319	CDJM4	MW-4-W-07182012 Grab Water Facility# 82307
6727320	CDJ4D	MW-4-WD-07182012 Grab Water Facility# 82307
6727321	CDJTB	QA-W-07182012 Water Facility# 82307

Chevron Generic Analysis Request/Chain of Custody

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Acct. # 10880 Group # 1323403 Sample # 6727319-21

For Lancaster Laboratories use only

Instructions on reverse side correspond with circled numbers.

SCR #: _____

(1) Client Information

Facility # Chevron 82307 WBS

Site Address 9203 Cessna Dr, Juneau, AK

Chevron PM Dan Carrier Lead Consultant CRA

Consultant/Office Jim Schneider, CRA-Irvine 175 Technology Dr Ste. 150 Irvine, CA 92618

Consultant Project Mgr. Jim Schneider

Consultant Phone # (949) 648-5202

Sampler Jill Chapman

(4) Matrix

☐ Sediment ☒ Ground ☐ Surface

☐ Soil ☐ Potable ☐ NPDES ☐ Air ☐ Oil

(5) Analyses Requested

(2) Sample Identification	Collected Date	Collected Time	(3) Grab	Composite	Total Number of Containers	BTEX + MTBE 8021 ☐ 8260 ☐ Naphth ☐	8260 full scan	Oxygenates ___	C6-C10 TPHG AK water	C10-C25 TPHD AK water Silica Gel Cleanup ☒	Lead Total ☐ Diss. ☐ Method ___	VPH/EPH Method ___	Sulfate, Nitrate, Nitrite Nitrogen	CO2	Alkalinity to pH 4.5
MW-4-W-07182012	7/18/12	1630	X		22				X	X			X	X	X
MW-4-WD-07182012	7/18/12	1630	X		5				X	X					
QA-W-07182012	7/18/12	1630	X		2				X						

☐ Results in Dry Weight
☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm MTBE + Naphthalene
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run _____ oxy's on highest hit
☐ Run _____ oxy's on all hits

(6) Remarks

TPHd silica gel cleanup: both with and without

(7) Turnaround Time Requested (TAT) (please circle)

Standard 5 day 4 day
72 hour 48 hour 24 hour

(8) Data Package Options (please circle if required)

Type I - Full Type VI (Raw Data) Alaska/Type III

Relinquished by	Date	Time	Received by	Date	Time
[signature]	7-19-12	0800			

Relinquished by Commerical Carrier: UPS ___ FedEx X Other ___

Temperature Upon Receipt 2.2 °C

Received by [signature] Date 7-20-12 Time 925

Custody Seals Intact? Yes No

(9)

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Environmental Sample Administration
Receipt Documentation Log

Client/Project: Cheuron

Date of Receipt: 7.20-12

Time of Receipt: 925

Source Code: 50-1

Shipping Container Sealed: (YES) NO

Custody Seal Present * : (YES) NO

* Custody seal was intact unless otherwise noted in the discrepancy section

Package: (Chilled) Not Chilled

Temperature of Shipping Containers							
Cooler #	Thermometer ID	Temperature (°C)	Temp Bottle (TB) or Surface Temp (ST)	Wet Ice (WI) or Dry Ice (DI) or Ice Packs (IP)	Ice Present? Y/N	Loose (L) Bagged Ice (B) or NA	Comments
1	2737	2.2	TB	WI	Y	B	
2							
3							
4							
5							
6							

Number of Trip Blanks received NOT listed on chain of custody: ~~0~~ 2

Paperwork Discrepancy/Unpacking Problems:

Rec 1 Amber Broken for mw4WD-07182012
Rec 4 Ambers 1 (70) ~~1~~ 16 vials 4 (55)
2 (56) 4 (65) 2 (80) 4 (104) for
mw4-W-07182012 @KMZ 7-20-12 @KMZ 7-20-12
Rec 2 Amber ~~1 (70)~~ 3 vials (104) for
mw-4-WD-07182012

Unpacker Signature/Emp#: [signature] 2299 **Date/Time:** 7.20-12 1001

Issued by Dept. 6042 Management

2174.06

Batchlog Summary 12205A94A

QC	ID	Sample Code	Amt	SS/IS S	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	SW	DF	PH	BC	Comments
BLANKA	AA	BLKQO	1.00	SS1217825A	0.0002			1		1.00			
LCSA	AA	LCSI2	1.00	SS1217825A	0.0002	MS1220525A	0.000220	1		1.00			prepped
LCSDA	AA	LCSDFS	1.00	SS1217825A	0.0002	MS1220525A	0.000220	1		1.00			7-23-12

Sample#	ID	Sample Code	Amt	SS/IS Std.	Amt (mL)	FV (mL)	SW	DF	PH	BC	HS	Due Date	Hold Date	P	Analyses	Comments
6727319	AA	CDJM4	1.00	SS1217825A	0.0002	1		1.00	52	104A	☐	7/30	7/25	P	01438	
6727320	AA	CDJ4D	1.00	SS1217825A	0.0002	1		1.00	52	104A	☐	7/30	8/1	P	01438	
6727321	AA	CDJTB	1.00	SS1217825A	0.0002	1		1.00	52	104A	☐	7/30	8/1	P	01438	

Spike Solutions:

MS1220525A Waters GRO Spike #2
SS1217825A Waters 2 Component Surr. Sol.

Analyst: GS7932
Date: 7/24/12

Verifier: MDD001
Date: 7-25-12

Comments

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Sample pH Log

SDG: AKF94

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	Res. Cl. Present?	Corrective Substance	CS Lot #
6727319	029A	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
6727319	029A	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
6727319	029B	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
6727319	029B	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
6727319	029C	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
6727319	029C	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
6727319	029D	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
6727319	029D	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA
6727319	056A	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA
6727319	056A	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA
6727319	056B	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA
6727319	056B	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA
6727320	029A	<2	<2	PK	NA	NA	NA	NA	NA	Y	NA	NA	NA	NA	NA	NA

Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

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01146 GC VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030B, December 1996.

01438 TPH-GRO AK water C6-C10

The volatile compounds are extracted by bubbling an inert gas through the sample and collecting them on a sorbent trap. The trap is thermally desorbed onto a capillary column and analysis is performed using gas chromatography with a flame ionization detector (FID) and, optionally, a photoionization detector (PID) in series. Quantitation for Gasoline Range Organics (GRO) is performed using the total peak area detected within the hydrocarbon range defined in the method.

Reference: Method AK101 for the Determination of Gasoline Range Organics, April 8, 2002

00219 Nitrite Nitrogen

Nitrite ions react with sulfanilamide to yield a diazo compound which couples with N-1-naphthylethylene diamine dihydrochloride to form a soluble, highly-colored dye. The result is determined colorimetrically.

Reference: Method 353.2, Methods for Chemical Analysis of Water and Wastes USEPA 600, Revision 2.0, 1993

00220 Nitrate Nitrogen

Nitrate ions are reduced to nitrite by passing through a cadmium coil. The nitrite ions then react with sulfanilamide to yield a diazo compound which couples with N-1-naphthylethylene diamine dihydrochloride to form a soluble, highly-colored dye. The result is determined colorimetrically.

Reference: Method 353.2, Methods for Chemical Analysis of Water and Wastes USEPA 600, Revision 2.0, 1993

00228 Sulfate

A small volume of sample is introduced into an ion chromatograph. The anions are then separated and measured by a system consisting of a guard column, separator column, suppressor, and conductivity detector.

Reference: Method 300.0, Methods for Chemical Analysis of Water and Wastes USEPA 600, Revision 2.1, 1993

12707 Phenolphthalein Alkalinity

Alkalinity is determined by titrating the sample with standardized sulfuric acid to pH of 8.3 for the phenolphthalein alkalinity.

Reference: Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, Method 2320 B

12150 Total Alkalinity

Alkalinity is determined by titrating the sample with standardized sulfuric acid to a pH of 4.5 for the total alkalinity.

Reference: Standard Methods for the Examination of Water and Wastewater, 20th Edition, 1998, Method 2320 B

01741 TPH-DRO AK water C10-C25

Sample extracts in methylene chloride are analyzed by capillary chromatography using flame ionization detection. Quantitation is performed using the total peak area detected within the hydrocarbon ranges defined in the method.

Reference: Alaska Method 102/103 for Determination of Diesel Range Organics, April 8, 2002.

02244 TPH-DRO AK C10-C25 w/Si Gel

Sample extracts in methylene chloride are analyzed by capillary chromatography using flame ionization detection. Quantitation is performed using the total peak area detected within the hydrocarbon range defined in the method. The extract is treated with silica gel to remove polar organic compounds prior to analysis.

Reference: Alaska Method 102/103 for Determination of Diesel Range Organics, April 8, 2002.

11242 AK DRO Ext (W) w/SG
11184 AK DRO Waters Extraction

An aliquot of sample is extracted with methylene chloride using either separatory funnel extraction or micro extraction technique.

Reference: Alaska Method 102/103 for Determination of Diesel Range Organics, April 8, 2002.

08097 CO2 by Headspace

An aliquot of sample is placed in a headspace vial and warmed to 35C. A portion of the headspace is analyzed on a gas chromatograph and thermal conductivity detector.

Reference: Test Methods for Evaluating Solid Wastes SW-846, Method 8015B Modified, December 1996.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

September 24, 2012

Project: 82307

Submittal Date: 07/20/2012
Group Number: 1323403
SDG: AKF94
PO Number: 0015109092
Release Number: CARRIER
State of Sample Origin: AK

Client Sample Description	Lancaster Labs (LLI) #
MW-4-W-07182012 Grab Water	6727319
MW-4-WD-07182012 Grab Water	6727320
QA-W-07182012 Water	6727321

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Chevron	Attn: CRA EDD
ELECTRONIC COPY TO	Chevron	Attn: ChevronGWRT
ELECTRONIC COPY TO	CRA	Attn: Jim Schneider
1 COPY TO	Data Package Group	
ELECTRONIC COPY TO	CRA	Attn: Jeffrey Cloud
ELECTRONIC COPY TO	CRA	Attn: Sarah Gillette
ELECTRONIC COPY TO	CRA	Attn: Nick Greco
ELECTRONIC COPY TO	CRA	Attn: Jo'l Chapman
ELECTRONIC COPY TO	CRA	Attn: Mike McDonald

Respectfully Submitted,

Natalie R. Luciano
Specialist

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Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
µg	microgram(s)	**mg**	milligram(s)
mL	milliliter(s)	**L**	liter(s)
m3	cubic meter(s)	**µL**	microliter(s)
		pg/L	picogram/liter

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR part 136 Table II as "analyze immediately" are not performed within 15 minutes.

3768.07

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Analysis Report

Sample Description: MW-4-W-07182012 Grab Water
Facility# 82307
9203 Cessna Dr - Juneau, AK

LLI Sample # WW 6727319
LLI Group # 1323403
Account # 10880

Project Name: 82307

Collected: 07/18/2012 16:30 by JC

Submitted: 07/20/2012 09:25
Reported: 09/24/2012 12:13

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CDJM4 SDG#: AKF94-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**AK 101**		**mg/l**	**mg/l**	
01438	TPH-GRO AK water C6-C10	n.a.	1.3	0.010	1
GC Miscellaneous	**SW-846 8015B modified**		**mg/l**	**mg/l**	
08097	CO2 by Headspace	124-38-9	50	4.0	1
GC Petroleum Hydrocarbons	**AK 102/AK 103 04/08/02**		**mg/l**	**mg/l**	
01741	TPH-DRO AK water C10-C25	n.a.	15	0.47	10
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken: The sample was re-analyzed within the method required holding time, and LCS/LCSD recoveries are outside the QC acceptance limits. Similar results were obtained in both trials. The original results are reported.				
GC Petroleum Hydrocarbons w/Si	**AK 102/AK 103 04/08/02**		**mg/l**	**mg/l**	
02244	TPH-DRO AK C10-C25 w/Si Gel	n.a.	25	0.47	10
	Due to the dilution of the sample extract, capric acid recovery can not be determined.				
Wet Chemistry	**EPA 300.0**		**mg/l**	**mg/l**	
00228	Sulfate	14808-79-8	2.1 J	1.5	5
	EPA 353.2		**mg/l**	**mg/l**	
00220	Nitrate Nitrogen	14797-55-8	N.D.	0.040	1
00219	Nitrite Nitrogen	14797-65-0	0.047 J	0.015	1
	SM20 2320 B		**mg/l as CaCO3**	**mg/l as CaCO3**	
12150	Total Alkalinity	n.a.	103	0.70	1
12707	Phenolphthalein Alkalinity	n.a.	N.D.	0.70	1

General Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor

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Analysis Report

Sample Description: MW-4-W-07182012 Grab Water
Facility# 82307
9203 Cessna Dr - Juneau, AK

LLI Sample # WW 6727319
LLI Group # 1323403
Account # 10880

Project Name: 82307

Collected: 07/18/2012 16:30 by JC

Submitted: 07/20/2012 09:25
Reported: 09/24/2012 12:13

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CDJM4 SDG#: AKF94-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
01438	TPH-GRO AK water C6-C10	AK 101	1	12205A94A	07/23/2012	23:10	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	12205A94A	07/23/2012	23:10	Catherine J Schwarz	1
08097	CO2 by Headspace	SW-846 8015B modified	1	122060035A	07/24/2012	19:17	Elizabeth J Marin	1
01741	TPH-DRO AK water C10-C25	AK 102/AK 103 04/08/02	1	122060032A	07/26/2012	23:23	Tyler O Griffin	10
02244	TPH-DRO AK C10-C25 w/Si Gel	AK 102/AK 103 04/08/02	1	122120036A	08/02/2012	08:35	Tyler O Griffin	10
11242	AK DRO Ext (W) w/SG	AK 102/AK 103 04/08/02	2	122120036A	07/31/2012	10:00	William H Saadeh	1
11184	AK DRO Waters Extraction	AK 102/AK 103 04/08/02	1	122060032A	07/25/2012	09:25	Cynthia J Salvatori	1
00228	Sulfate	EPA 300.0	1	12208621901B	07/26/2012	19:43	William L Hamaker Jr	5
00220	Nitrate Nitrogen	EPA 353.2	1	12208106102A	07/26/2012	14:11	Joseph E McKenzie	1
00219	Nitrite Nitrogen	EPA 353.2	1	12202105101A	07/20/2012	11:21	Joseph E McKenzie	1
12150	Total Alkalinity	SM20 2320 B	1	12206005204B	07/25/2012	03:44	Susan A Engle	1
12707	Phenolphthalein Alkalinity	SM20 2320 B	1	12206005204B	07/25/2012	03:44	Susan A Engle	1

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Analysis Report

Sample Description: MW-4-WD-07182012 Grab Water
Facility# 82307
9203 Cessna Dr - Juneau, AK

LLI Sample # WW 6727320
LLI Group # 1323403
Account # 10880

Project Name: 82307

Collected: 07/18/2012 16:30 by JC

Submitted: 07/20/2012 09:25
Reported: 09/24/2012 12:13

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CDJ4D SDG#: AKF94-02FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	**AK 101**		**mg/l**	**mg/l**	
01438	TPH-GRO AK water C6-C10	n.a.	0.60	0.010	1
GC Petroleum Hydrocarbons	**AK 102/AK 103 04/08/02**		**mg/l**	**mg/l**	
01741	TPH-DRO AK water C10-C25	n.a.	12	0.48	10
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.				
GC Petroleum Hydrocarbons w/Si	**AK 102/AK 103 04/08/02**		**mg/l**	**mg/l**	
02244	TPH-DRO AK C10-C25 w/Si Gel	n.a.	7.1	0.48	10
	The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis. Due to the dilution of the sample extract, capric acid recovery can not be determined.				

General Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01438	TPH-GRO AK water C6-C10	AK 101	1	12205A94A	07/23/2012 23:35	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	12205A94A	07/23/2012 23:35	Catherine J Schwarz	1
01741	TPH-DRO AK water C10-C25	AK 102/AK 103 04/08/02	1	122060032A	07/26/2012 23:51	Tyler O Griffin	10
02244	TPH-DRO AK C10-C25 w/Si Gel	AK 102/AK 103 04/08/02	1	122060033A	07/28/2012 00:04	Tyler O Griffin	10
11242	AK DRO Ext (W) w/SG	AK 102/AK 103 04/08/02	1	122060033A	07/25/2012 09:25	Cynthia J Salvatori	1
11184	AK DRO Waters Extraction	AK 102/AK 103 04/08/02	1	122060032A	07/25/2012 09:25	Cynthia J Salvatori	1

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Analysis Report

Sample Description: QA-W-07182012 Water
Facility# 82307
9203 Cessna Dr - Juneau, AK

LLI Sample # WW 6727321
LLI Group # 1323403
Account # 10880

Project Name: 82307

Collected: 07/18/2012 16:30

Submitted: 07/20/2012 09:25
Reported: 09/24/2012 12:13

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CDJTB SDG#: AKF94-03TB*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC Volatiles	AK 101		mg/l	mg/l	
01438	TPH-GRO AK water C6-C10	n.a.	N.D.	0.010	1

General Sample Comments

State of Alaska Lab Certification No. UST-061

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01438	TPH-GRO AK water C6-C10	AK 101	1	12205A94A	07/23/2012 22:44	Catherine J Schwarz	1
01146	GC VOA Water Prep	SW-846 5030B	1	12205A94A	07/23/2012 22:44	Catherine J Schwarz	1

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Volatiles by GC-GRO Data

Case Narrative/Conformance Summary

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Case Narrative/Conformance Summary

CLIENT: ChevronTexaco
SDG: AKF94

Volatiles by GC

Fraction: Volatiles by GC-GRO

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
6727319	MW-4-W-07182012	X		1	
6727320	MW-4-WD-07182012	X		1	Field Duplicate Sample
6727321	QA-W-07182012	X		1	Trip Blank

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation

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Case Narrative/Conformance Summary

CLIENT: ChevronTexaco
SDG: AKF94

Volatiles by GC

Fraction: Volatiles by GC-GRO

MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 8/6/12 by
(Date)

Nancy E. Saunders
Nancy E. Saunders
Specialist

Quality Control and Calibration Summary Forms

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Quality Control Reference List
Volatiles by GC

CLIENT: ChevronTexaco
SDG: AKF94

Fraction: Volatiles by GC-GRO

Analysis	Batch Number	Sample Number	Analysis Date
TPH-GRO AK water C6-C10	12205A94A	BLKQO	07/23/2012 21:27:00
		LCSI2	07/23/2012 21:53:00
		LCSDFS	07/23/2012 22:18:00
		6727319	07/23/2012 23:10:00
		6727320	07/23/2012 23:35:00
		6727321	07/23/2012 22:44:00

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Quality Control Summary
Method Blank
Volatiles by GC
SDG: AKF94
Matrix: LIQUID

Fraction: Volatiles by GC-GRO

12205A94A / BLKQO Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
TPH-GRO AK water C6-C10	07/23/12	N.D.	mg/l	0.010	0.10

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Quality Control Summary
Surrogates
Volatiles by GC
SDG: AKF94
Matrix: LIQUID

Fraction: Volatiles by GC-GRO

12205A94A	Trifluorotoluene-F	
	Spike Added	30 ug/l
Sample	% Recovery	Limits
BLKQO	74	60 - 120
LCSI2	90	60 - 120
LCSDFS	91	60 - 120
6727319	73	60 - 120
6727320	82	60 - 120
6727321	75	60 - 120

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Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: AKF94
Matrix: LIQUID

Volatiles by GC

Fraction: Volatiles by GC-GRO

LCS: LCSI2 LCSD: LCSDFS **Analyte**	Batch: **12205A94A** (Sample number(s): 6727319-6727321)							
	Spike Added ug/l	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
TPH-GRO AK water C6-C10	1100	1200	1100	109	100	60-120	9	20

6D
INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 16394F Calibration File: ALK94264

GC Column (1) : Restek VRX ID: 30 (mm) Update File: 94265B.0004.RAW

Date(s) Analyzed: 9/22/2011 9/22/2011

COMPOUND	RT OF STANDARDS							MIDPOINT	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	LEVEL 7	RT	FROM	TO
Trifluorotoluene-F	2.97	2.95	2.95	2.96	2.96			2.96	2.93	3.00
1-Chloro-3-fluorobenzene	4.57	4.56	4.56	4.57	4.57	4.57	4.57	4.57	4.53	4.60

FORM VI-1

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 16394F Calibration File: ALK94264

GC Column (1) : Restek VRX ID: 30 (mm) Date(s) Analyzed: 9/22/2011 9/22/2011

COMPOUND	CALIBRATION FACTORS								%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	LEVEL 7	MEAN	
Trifluorotoluene-F	2.37E+04	2.55E+04	2.56E+04	2.84E+04	2.55E+04			2.57E+04	6.6
1-Chloro-3-fluorobenzene	2.04E+04	2.02E+04	2.06E+04	2.30E+04	2.63E+04	3.74E+04	5.44E+04	2.89E+04	44.3

Average % RSD: 25.5

File Name:	I:\Cal\94\ALK94264.CAL
Version:	15
Creator:	LMK02638
Description:	AK GRO
Reason for change:	

External standard calibration

Standard injection volume:	1
Standard sample weight:	1
Area reject threshold:	0
Reference peak area reject threshold:	0
Amount units:	PPB

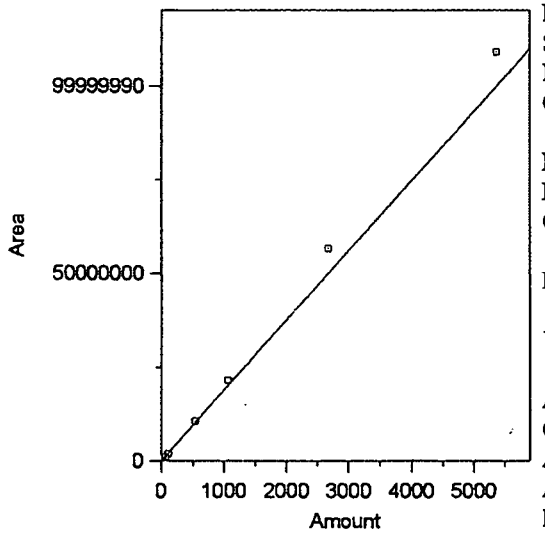
No default component

Method of calculating data point averages: Current update equal to cal data
Print calibration update report

All levels are normal data points.

Amozo 9/28/11

1 GRO



Expected retention time:	0 minutes
Search window:	0 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	550

Multiple peak quantification by area

Y = 18701.12 X + 0

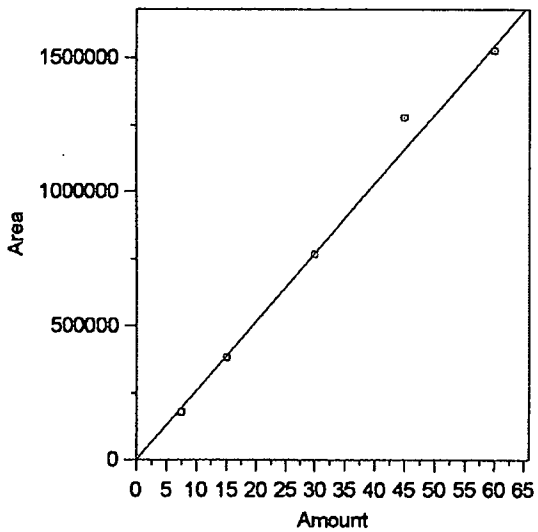
Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9868708
Average error:	10.096%
Average CF:	18701.12
RSD:	13.315%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	21.4	298317	13940.05	-25.459	Manual	9/22/2011 9:40:19 PM
2	53.6	918844	17142.61	-8.334	Manual	9/22/2011 9:47:58 PM
3	107	1970113	18412.27	-1.545	Manual	9/22/2011 9:48:00 PM
4	536	1.060639E+07	19788.04	5.812	Manual	9/22/2011 9:40:45 PM
5	1071	2.145305E+07	20030.86	7.110	Manual	9/22/2011 9:48:10 PM
6	2678	5.671321E+07	21177.45	13.242	Manual	9/22/2011 9:48:12 PM
7	5355	1.093308E+08	20416.58	9.173	Manual	9/22/2011 9:48:15 PM

ALK94264
9/28/11

2 SURR-TFT-F



Expected retention time:	2.96 minutes
Search window:	0.035 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	30

Multiple peak quantification by area

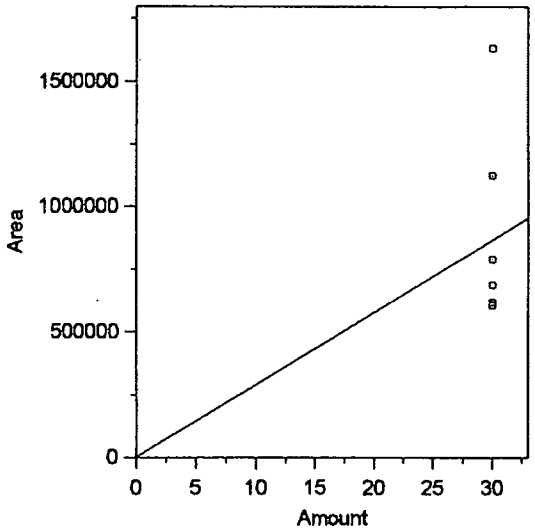
Y = 25743.16 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.988741
Average error:	4.129%
Average CF:	25743.16
RSD:	6.549%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	7.5	177750.9	23700.12	-7.936	Y:\Active\CP94\94265B.0004.BND	9/22/2011 9:38:04 PM
2	15	383244.8	25549.65	-0.752	Y:\Active\CP94\94265B.0005.BND	9/22/2011 9:38:07 PM
3	30	767834.9	25594.5	-0.577	Y:\Active\CP94\94265B.0006.BND	9/22/2011 9:38:10 PM
4	45	1278024	28400.53	10.323	Y:\Active\CP94\94265B.0007.BND	9/22/2011 9:38:13 PM
5	60	1528260	25471	-1.057	Y:\Active\CP94\94265B.0008.BND	9/22/2011 9:38:16 PM
6	(0)	(0)	--	--	Manual	1/8/2009 3:38:32 PM
7	(0)	(0)	--	--	Manual	1/8/2009 3:39:19 PM

3 SURR-1C3FB



Expected retention time:	4.567 minutes
Search window:	0.035 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	30

Multiple peak quantification by area

Y = 28906.63 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0
Average error:	33.665%
Average CF:	28906.63
RSD:	44.301%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	30	610851	20361.7	-29.560	Y:\Active\CP94\94265B.0004.BND	9/22/2011 9:38:04 PM
2	30	606358.9	20211.96	-30.078	Y:\Active\CP94\94265B.0005.BND	9/22/2011 9:38:07 PM
3	30	618138.7	20604.62	-28.720	Y:\Active\CP94\94265B.0006.BND	9/22/2011 9:38:10 PM
4	30	689148.4	22971.61	-20.532	Y:\Active\CP94\94265B.0007.BND	9/22/2011 9:38:13 PM
5	30	789692.1	26323.07	-8.938	Y:\Active\CP94\94265B.0008.BND	9/22/2011 9:38:16 PM
6	30	1123126	37437.54	29.512	Y:\Active\CP94\94265B.0009.BND	9/22/2011 9:38:18 PM
7	30	1633078	54435.93	88.316	Y:\Active\CP94\94265B.0010.BND	9/22/2011 9:38:21 PM

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories
Contract:
Lab Code:
Case No.:
SAS No.:
SDG No.:
Instrument: 16394F
Detector: FID
Init. Calib Date(s): 09/22/11 09/22/11
GC Column (1) : Restek VRX ID: 30 (mm)
Date Analyzed: 09/22/11
Lab File ID: 94265B.0014.RAW
Time Analyzed: 22:21
Lab Standard ID: GICVXDO
Initial Calibration: ALK94264
Method: ALASKA

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D	Limits
GRO		1.46	6.50	1240.16	1071	15.8	-25 to +25

Compounds 1
Average of %D: 15.8

FORM VII

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories
Contract:
Lab Code: Case No.: SAS No.: SDG No.:
Instrument: 16394F Detector: FID
Init. Calib Date(s): 09/22/11 09/22/11
GC Column (1) : Restek VRX ID: 30 (mm)
Date Analyzed: 07/23/12
Lab File ID: 94205B.0002.RAW
Time Analyzed: 21:01
Lab Standard ID: WGCCXWM
Initial Calibration: ALK94264
Method: ALASKA

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D	Limits
Trifluorotoluene-F	2.95	2.93	3.00	24.15	30.00	-20	-43 to +46
GRO		1.48	6.49	507.38	535.00	-5	-25 to +25

Compounds 2 Average of %D: 13

FORM VII

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories
Contract:
Lab Code: Case No.: SAS No.: SDG No.:
Instrument: 16394F Detector: FID
Init. Calib Date(s): 09/22/11 09/22/11
GC Column (1) : Restek VRX ID: 30 (mm)
Date Analyzed: 07/24/12
Lab File ID: 94205B.0009.RAW
Time Analyzed: 0:01
Lab Standard ID: WGCCXWN
Initial Calibration: ALK94264
Method: ALASKA

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT	NOM AMOUNT	%D	Limits
Trifluorotoluene-F	2.95	2.93	3.00	23.41	30.00	-22	-43 to +46
GRO		1.48	6.49	489.77	535.00	-9	-25 to +25

Compounds 2 Average of %D: 16

FORM VII

6F

INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: 16394F Calibration File: ALK94264

GC Column (1): Restek VRX ID: 30 (mm) Date(s) Analyzed: 9/22/2011 9/22/2011

COMPOUND	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR	AVERAGE CF	LEVEL	AMOUNT	PEAK AREA	%RSD
GRO	1		1.46	6.50	13940	18701	1	21.4	298317	13.3
					17143		2	53.6	918844	
					18412		3	107	1970113	
					19788		4	536	10606390	
					20031		5	1071	21453050	
					21177		6	2678	56713208	
					20417		7	5355	109330800	

8D
ANALYTICAL SEQUENCE

Sequence: 94205B | Lab Name: Lancaster laboratories | Contract:

Lab Code: | Case No.: | SAS No: | SDG No.:

GC Column: Restek VRX | ID: 30

Instrument: 16394F

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001	WGRTXJS	WGRTX1225Z	07/23/2012	20:36:20	ALK94264
002	WGCCXWM	WGCCX1225EH	07/23/2012	21:01:49	ALK94264
003	BLKQO	BLANKA	07/23/2012	21:27:47	ALK94264
004	LCSI2	LCSA	07/23/2012	21:53:46	ALK94264
005	LCSDFS	LCSDA	07/23/2012	22:18:52	ALK94264
006	CDJTB	6727321	07/23/2012	22:44:52	ALK94264
007	CDJM4	6727319	07/23/2012	23:10:47	ALK94264
008	CDJ4D	6727320	07/23/2012	23:35:54	ALK94264
009	WGCCXWN	WGCCX1225EH	07/24/2012	00:01:29	ALK94264
010	WGRTXJS	WGRTX1225Z	07/26/2012	11:47:44	ALK94264
011	WGCCXXM	WGCCX1225EJ	07/26/2012	12:13:12	ALK94264
012	BLKRF	BLANKB	07/26/2012	12:38:40	ALK94264
013	121T-	6732283	07/26/2012	13:04:39	ALK94264
014	121-E	6732282	07/26/2012	13:30:14	ALK94264
015	WGCCXXN	WGCCX1225EJ	07/26/2012	13:55:20	ALK94264
016	WGCCXXM	WGCCX1225EJ	07/26/2012	15:03:37	ALK94264
017	BLKRF	BLANKB	07/26/2012	15:28:44	ALK94264
018	121T-	6732283	07/26/2012	15:54:19	ALK94264
019	121-E	6732282	07/26/2012	16:19:50	ALK94264
020	WGCCXXN	WGCCX1225EJ	07/26/2012	16:45:21	ALK94264

Sample Data

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LOQ/MDL Summary
Volatiles by GC

SDG: AKF94

Fraction: Volatiles by GC-GRO

01438: TPH-GRO AK water C6-C10 Analyte Name	Default MDL	Default LOQ	Units
TPH-GRO AK water C6-C10	10	100	ug/l

Lancaster Laboratories-Range Data Summary

Sample Name: 6727319 CDJM4 Sample ID: AA **Batchnumber:** 12205A94A
Sample Amount: 1. Total Volume: 1. ml Analyst: 1991 SDG:AKF94 State: AK
Analyses: 01438

Injection Summary

Injected on : 7/23/2012 23:10:47
Instrument : CP94--16394F
Result file : 94205B.0007.RAW
Calibration files : ALK94264.CAL
Method files : ALK94264.MET
Setting : ALK94264

Surrogate Recoveries

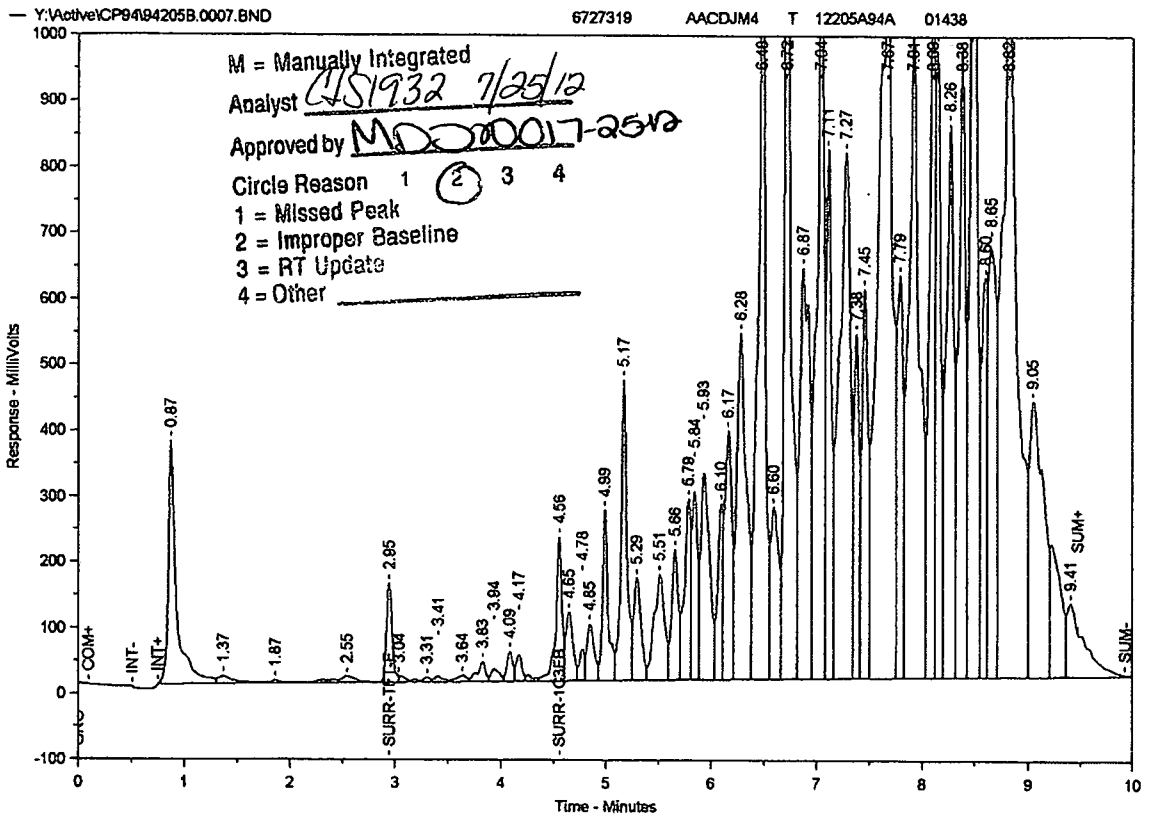
SURR-TFT-F 72.7% (60-120) Conc.: 21.817074
SURR-1C3FB

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ SURR-TFT-F	2.95 (2.93 - 3.00)	561640	21.8171				ppb
☐ SURR-1C3FB	4.56 (4.53 - 4.60)	906109	31.3460				ppb
☐ GRO	1.48 - 6.49	24987791	1257.6890	100	10		ppb

Comments:

Reviewed by: GJS1932 Verified by: MDD0001
Date: 7/25/12 Date: 7-25-12

6727319 AACDJM4 T 12205A94A 01438
CP94 FID 16394F 94205B.0007.RAW
7/23/2012 11:10:47 PM



6727319 AACDJM4 T 12205A94A 01438

Date Acquired: 7/23/2012 11:10:47 PM
Raw File: 94205B.0007.RAW
Analyst:
Dilution Factor: 1.00

Instrument: CP94 16394F
Units: ug/L
Method File: ALK94264.MET
Column: 30 M DB-VRX x 0.45mm x 2.55 um

Threshold: 5.00
Peak Table using calibration : I:\Cal\94\ALK94264.CAL- Version 37
Number of Compounds: 3

Component Name	Ret. Time	Exp RT	Amount ug/L	Peak Area (A)*	Peak Height (H)
5	2.95	2.96	21.82	561640	151083
14	4.56	4.57	31.35	906109	219150

RT Start	RT Stop	Unadj GRO	Total Surr.	Adj. GRO
1.48	6.49	24987790	1467749	23520040

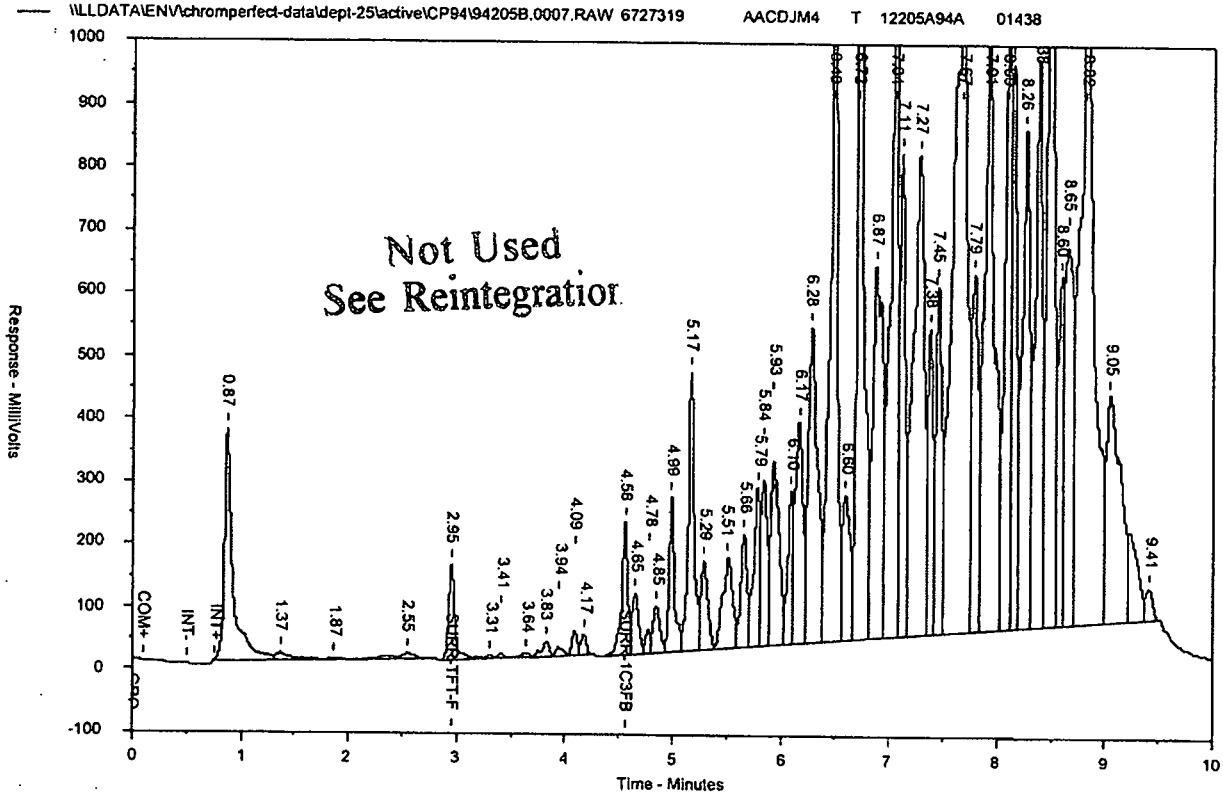
Surrogate Percent Recovery: 72.72

Total GRO Area: 23520040.00
Total GRO Concentration: 1257.68 ug/L

File: Y:\Active\CP94\94205B.0007.RAW

Chrom Perfect Chromatogram Report

6727319 AACDJM4 T 12205A94A 01438
CP94 FID 16394F 94205B.0007.RAW
7/23/2012 11:10:47 PM



6727319 AACDJM4 T 12205A94A 01438
Date Acquired: 7/23/2012 11:10:47 PM
Raw File: 94205B.0007.RAW
Analyst:
Dilution Factor: 1.00

Instrument: CP94 16394F
Units: ug/L
Method File: ALK94264.MET
Column: 30 M DB-VRX x 0.45mm x 2.55 um

Threshold: 5.00
Peak Table using calibration : I:\Cal\94\ALK94264.CAL- Version 37
Number of Compounds: 3

Component Name	Ret. Time	Exp RT	Amount ug/L	Peak Area (A)*	Peak Height (H)
5	2.95	2.96	22.90	589415	150671
13	4.56	4.57	28.38	820302	212650

RT Start	RT Stop	Unadj GRO	Total Surr.	Adj. GRO
1.48	6.49	22555490	1409717	21145780

Surrogate Percent Recovery: 76.32

Total GRO Area: 21145780.00
Total GRO Concentration: 1130.72 ug/L

File: \\LLDATA\ENV\chromperfect-data\dept-25\active\CP94\94205B.0007.RAW

Lancaster Laboratories-Range Data Summary

Sample Name: 6727320 CDJ4D Sample ID: AA **Batchnumber:** 12205A94A
Sample Amount: 1. Total Volume: 1. ml Analyst: 1991 SDG:AKF94 State: AK
Analyses: 01438

Injection Summary

Injected on : 7/23/2012 23:35:54
Instrument : CP94--16394F
Result file : 94205B.0008.RAW
Calibration files : ALK94264.CAL
Method files : ALK94264.MET
Setting : ALK94264

Surrogate Recoveries

SURR-TFT-F 81.5% (60-120) Conc.: 24.456402
SURR-1C3FB

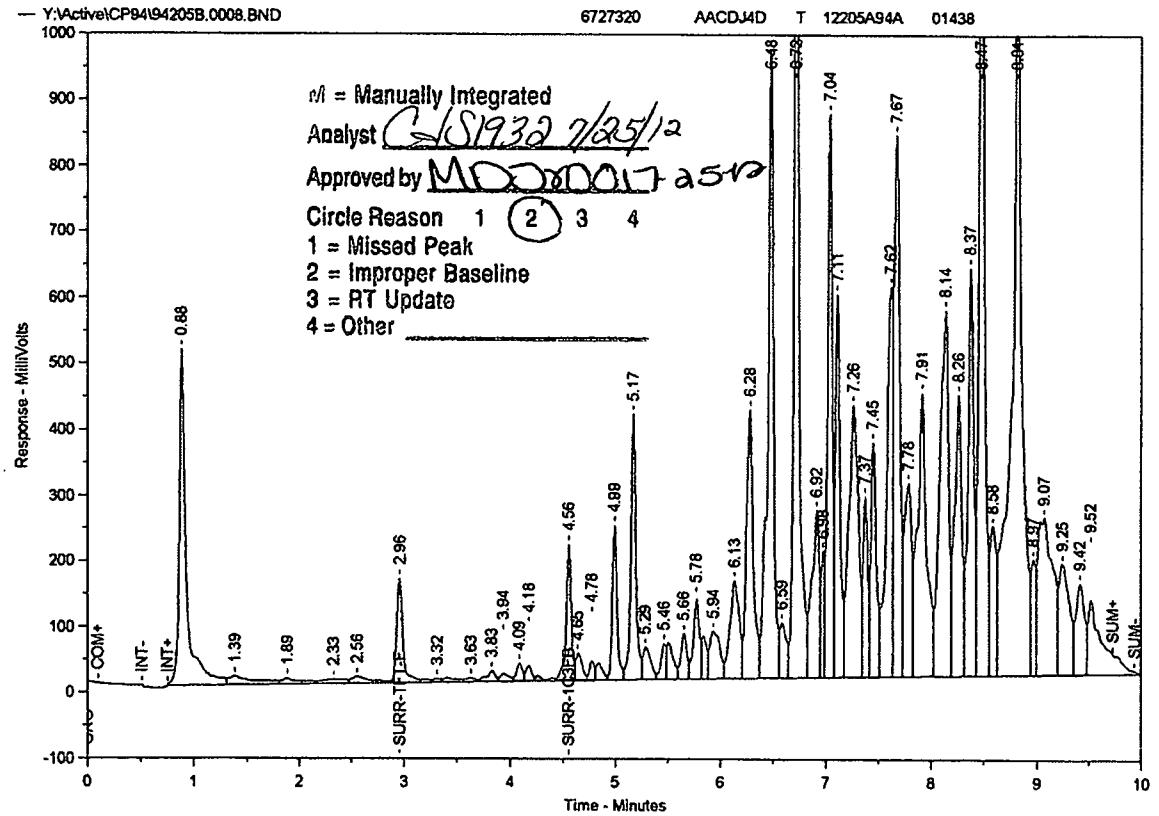
Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ SURR-TFT-F	2.96 (2.93 - 3.00)	629585	24.4564				ppb
☐ SURR-1C3FB	4.56 (4.53 - 4.60)	693412	23.9880				ppb
☐ GRO	1.48 - 6.49	12499224	597.6272	100	10		ppb

Comments:

Reviewed by: GLS1932 Verified by: MOD0001
Date: 7/25/12 Date: 7-25-12

Chrom Perfect Chromatogram Report

6727320 AACDJ4D T 12205A94A 01438
CP94 FID 16394F 94205B.0008.RAW
7/23/2012 11:35:54 PM



6727320 AACDJ4D T 12205A94A 01438

Date Acquired: 7/23/2012 11:35:54 PM
Raw File: 94205B.0008.RAW
Analyst:
Dilution Factor: 1.00

Instrument: CP94 16394F
Units: ug/L
Method File: ALK94264.MET
Column: 30 M DB-VRX x 0.45mm x 2.55 um

Threshold: 5.00
Peak Table using calibration : I:\Cal\94\ALK94264.CAL- Version 37
Number of Compounds: 3

Component Name	Ret. Time	Exp RT	Amount ug/L	Peak Area (A)*	Peak Height (H)
6	2.96	2.96	24.46	629585	158424
13	4.56	4.57	23.99	693412	206892

RT Start	RT Stop	Unadj GRO	Total Surr.	Adj. GRO
1.48	6.49	12499220	1322997	11176230

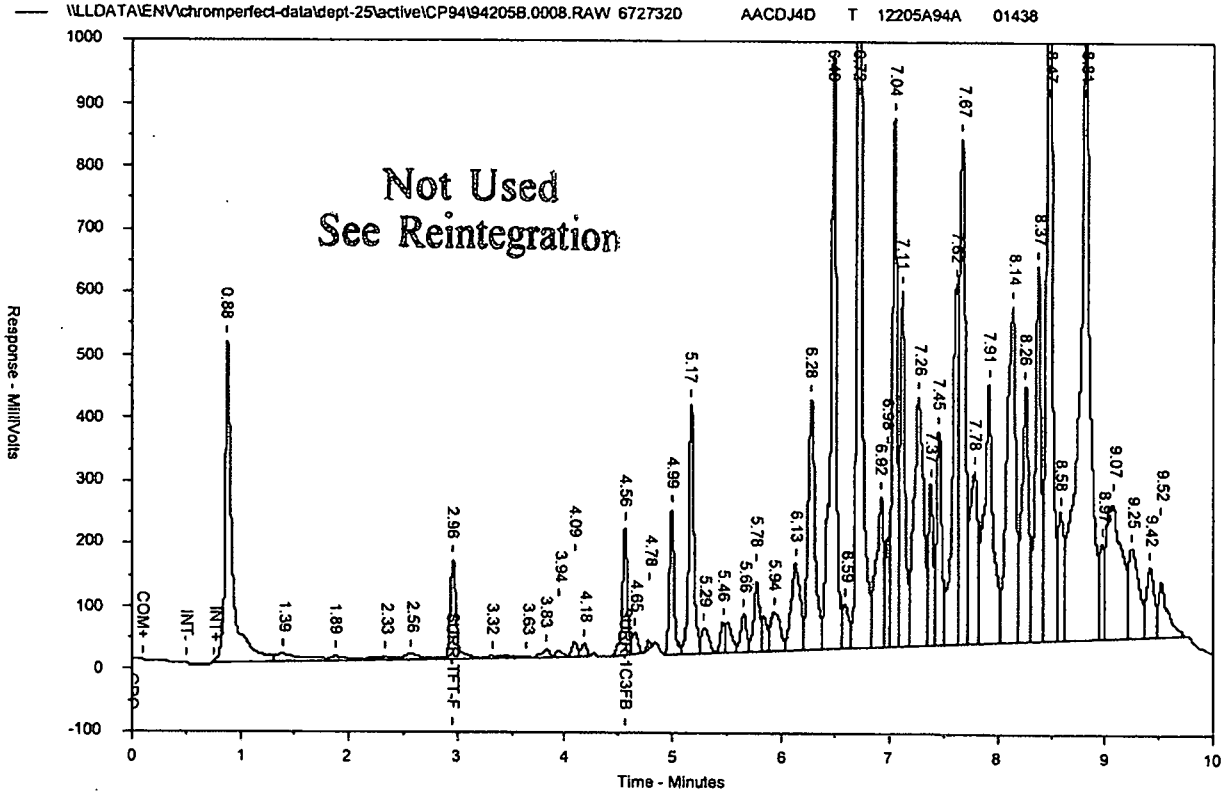
Surrogate Percent Recovery: 81.52

Total GRO Area: 11176230.00
Total GRO Concentration: 597.62 ug/L

File: Y:\Active\CP94\94205B.0008.RAW

ARF04 004

6727320 AACDJ4D T 12205A94A 01438
CP94 FID 16394F 94205B.0008.RAW
7/23/2012 11:35:54 PM



6727320 AACDJ4D T 12205A94A 01438
Date Acquired: 7/23/2012 11:35:54 PM
Instrument: CP94 16394F
Raw File: 94205B.0008.RAW
Units: ug/L
Analyst:
Method File: ALK94264.MET
Dilution Factor: 1.00
Column: 30 M DB-VRX x 0.45mm x 2.55 um

Threshold: 5.00
Peak Table using calibration : I:\Cal\94\ALK94264.CAL- Version 37
Number of Compounds: 3

Component Name	Ret. Time	Exp RT	Amount ug/L	Peak Area (A)*	Peak Height (H)
6	2.96	2.96	23.20	597346	156602
13	4.56	4.57	22.46	649369	202427

RT Start	RT Stop	Unadj GRO	Total Surr.	Adj. GRO
1.48	6.49	11350710	1246715	10103990

Surrogate Percent Recovery: 77.35

Total GRO Area: 10103990.00
Total GRO Concentration: 540.29 ug/L

File: \\LLDATA\ENV\chromperfect-data\dept-25\active\CP94\94205B.0008.RAW

Lancaster Laboratories-Range Data Summary

Sample Name: 6727321 CDJTB Sample ID: AA **Batchnumber:** 12205A94A
Sample Amount: 1. Total Volume: 1. ml Analyst: 1991 SDG:AKF94 State: AK
Analyses: 01438

Injection Summary

Injected on : 7/23/2012 22:44:52
Instrument : CP94--16394F
Result file : 94205B.0006.RAW
Calibration files : ALK94264.CAL
Method files : ALK94264.MET
Setting : ALK94264

Surrogate Recoveries

SURR-TFT-F 74.7% (60-120) Conc.: 22.398687
SURR-1C3FB

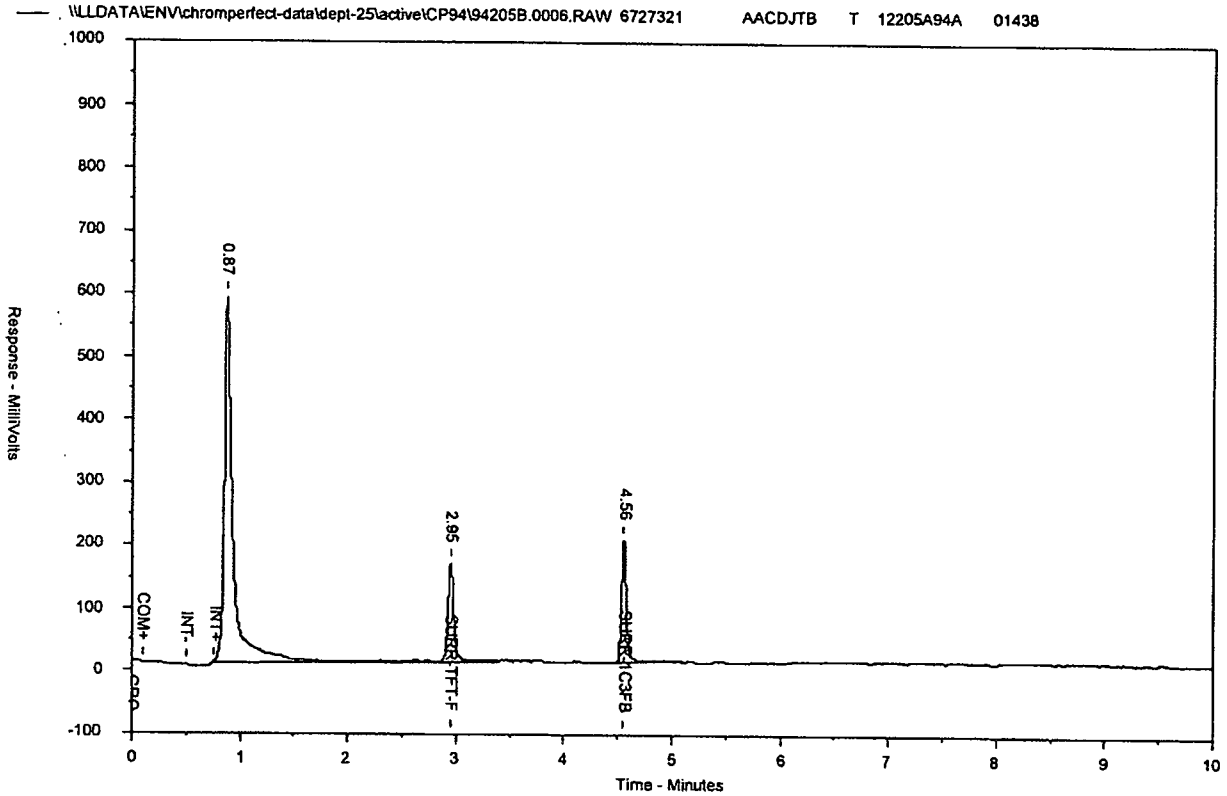
Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ SURR-TFT-F	2.95 (2.93 - 3.00)	576613	22.3987				ppb
☐ SURR-1C3FB	4.56 (4.53 - 4.60)	574994	19.8914				ppb
☐ GRO	1.48 - 6.49	1151607	0.0000	<100	<10		ppb

Comments:

Reviewed by: GKS1932 Verified by: MDD0001
Date: 7/25/12 Date: 7-25-12

Chrom Perfect Chromatogram Report

6727321 AACDJTB T 12205A94A 01438
CP94 FID 16394F 94205B.0006.RAW
7/23/2012 10:44:51 PM



6727321 AACDJTB T 12205A94A 01438
Date Acquired: 7/23/2012 10:44:51 PM
Raw File: 94205B.0006.RAW
Analyst:
Dilution Factor: 1.00

Instrument: CP94 16394F
Units: ug/L
Method File: ALK94264.MET
Column: 30 M DB-VRX x 0.45mm x 2.55 um

Threshold: 5.00
Peak Table using calibration : I:\Cal\94\ALK94264.CAL- Version 37
Number of Compounds: 3

Component Name	Ret. Time	Exp RT	Amount ug/L	Peak Area (A)*	Peak Height (H)
2	2.95	2.96	22.40	576613	155441
3	4.56	4.57	19.89	574994	191873

RT Start	RT Stop	Unadj GRO	Total Surr.	Adj. GRO
1.48	6.49	1151607	1151607	0

Surrogate Percent Recovery: 74.66

Total GRO Area: 0.00
Total GRO Concentration: 0.00 ug/L

File: \\LLDATA\ENV\chromperfect-data\dept-25\active\CP94\94205B.0006.RAW

Raw QC Data

Lancaster Laboratories-Range Data Summary

Sample Name: BLANKA BLKQO Sample ID: AA **Batchnumber:** 12205A94A
Sample Amount: 1. Total Volume: 1. ml Analyst: 1991 SDG: State:
Analyses: 01438

Injection Summary

Injected on : 7/23/2012 21:27:47
Instrument : CP94--16394F
Result file : 94205B.0003.RAW
Calibration files : ALK94264.CAL
Method files : ALK94264.MET
Setting : ALK94264

Surrogate Recoveries

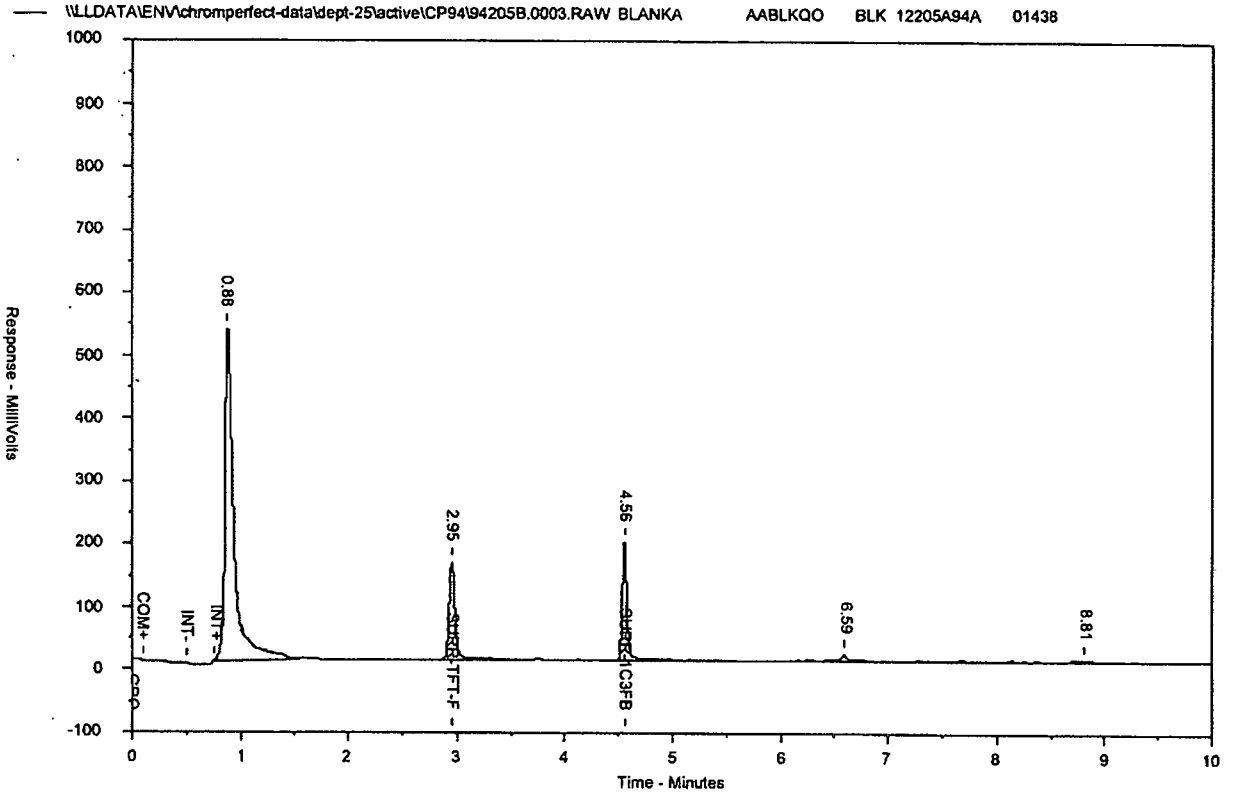
SURR-TFT-F 74.2% (60-120) Conc.: 22.267321
SURR-1C3FB

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ SURR-TFT-F	2.95 (2.93 - 3.00)	573231	22.2673				ppb
☐ SURR-1C3FB	4.56 (4.53 - 4.60)	577557	19.9801				ppb
☐ GRO	1.48 - 6.49	1150788	0.0000	<100	<10		ppb

Comments:

Reviewed by: GAS1932 Verified by: M000001
Date: 7/25/12 Date: 7-25-12

BLANKA AABLKQO BLK 12205A94A 01438
CP94 FID 16394F 94205B.0003.RAW
7/23/2012 9:27:47 PM



BLANKA AABLKQO BLK 12205A94A 01438
Date Acquired: 7/23/2012 9:27:47 PM
Raw File: 94205B.0003.RAW
Analyst:
Dilution Factor: 1.00
Instrument: CP94 16394F
Units: ug/L
Method File: ALK94264.MET
Column: 30 M DB-VRX x 0.45mm x 2.55 um

Threshold: 5.00
Peak Table using calibration : I:\Cal\94\ALK94264.CAL- Version 37
Number of Compounds: 3

Component Name	Ret. Time	Exp RT	Amount ug/L	Peak Area (A)*	Peak Height (H)
2	2.95	2.96	22.27	573231	154320
3	4.56	4.57	19.98	577557	188891

RT Start	RT Stop	Unadj GRO	Total Surr.	Adj. GRO
1.48	6.49	1150788	1150788	0

Surrogate Percent Recovery: 74.22

Total GRO Area: 0.00
Total GRO Concentration: 0.00 ug/L

File: \\LLDATA\ENV\chromperfect-data\dept-25\active\CP94\94205B.0003.RAW

CO2 by Headspace Data

Case Narrative/Conformance Summary

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Case Narrative/Conformance Summary

CLIENT: ChevronTexaco
SDG: AKF94

EPH/Miscellaneous GC

Fraction: CO2 by Headspace

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
6727319	MW-4-W-07182012	X		1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected

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Case Narrative/Conformance Summary

CLIENT: ChevronTexaco
SDG: AKF94

EPH/Miscellaneous GC

Fraction: CO2 by Headspace

BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 8-10-2012 by
(Date)

Audrey K. McClune
Audrey K. McClune
Specialist

Quality Control and Calibration Summary Forms

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Quality Control Reference List
EPH/Miscellaneous GC

CLIENT: ChevronTexaco
SDG: AKF94

Fraction: CO2 by Headspace

Analysis	Batch Number	Sample Number	Analysis Date
CO2 by Headspace	122060035A	PBLK35206	07/24/2012 18:46:00
		LCS35206	07/24/2012 18:56:00
		6727319	07/24/2012 19:17:00

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Quality Control Summary
Method Blank
EPH/Miscellaneous GC
SDG: AKF94
Matrix: LIQUID

Fraction: CO2 by Headspace

122060035A / PBLK35206 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
CO2 by Headspace	07/24/12	N.D.	mg/l	4.0	12

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Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: AKF94
Matrix: LIQUID

EPH/Miscellaneous GC
Fraction: CO2 by Headspace

LCS: LCS35206	Batch: **122060035A** (Sample number(s): 6727319)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
CO2 by Headspace	36000	32000		89		67-124		

6D
INITIAL CALIBRATION - RETENTION TIME SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: H3145A Calibration File: 1C20119

GC Column (1) : CTR1COLUMN ID: 1 (mm) Update File:

Date(s) Analyzed: 4/28/2012 4/28/2012

COMPOUND	RT OF STANDARDS					MIDPOINT	RT WINDOW	
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	RT	FROM	TO
CARBON DIOXIDE	1.76	1.75	1.74	1.73	1.72	1.67	1.57	1.77

FORM VI-1

6E

INITIAL CALIBRATION - CALIBRATION FACTOR SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: H3145A Calibration File: 1C20119

GC Column (1) : CTR1COLUMN ID: 1 (mm) Date(s) Analyzed: 4/28/2012 4/28/2012

COMPOUND	CALIBRATION FACTORS						%RSD
	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	MEAN	
CARBON DIOXIDE	8.36E-02	8.02E-02	8.44E-02	8.91E-02	8.56E-02	8.46E-02	3.8

Average % RSD: 3.8

FORM VI-2

File Name: Y:\CP20\1c20119.CAL
Version: 6

Creator:
Description:
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: PPB
No default component

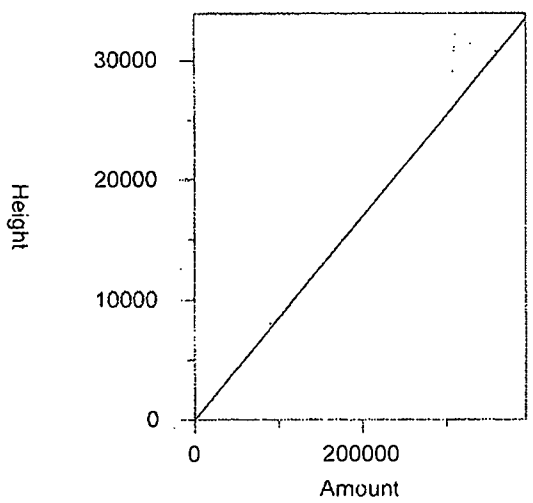
EM 23 LB 4/30/12

Method of calculating data point averages: Current update equal to cal data
No calibration update report

bs/04 5/1/12

All levels are normal data points.

1 CARBON DIOXIDE



Expected retention time (frozen): 1.67 minutes
Search window: 0.1 minutes
No retention time reference component
No response proxy component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by height

Y = 0.08459818 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9995139
Average error: 2.605%
Average CF: 0.08459818
RSD: 3.792%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	10800	903.004	0.08361148	-1.166	\\Uslan-chromperf\Active-data\CP20\1C20119.0002.BND	4/28/2012 5:36:39 PM
2	21600	1733.29	0.08024491	-5.146	\\Uslan-chromperf\Active-data\CP20\1C20119.0003.BND	4/28/2012 5:46:35 PM
3	36000	3039.414	0.08442817	-0.201	\\Uslan-chromperf\Active-data\CP20\1C20119.0004.BND	4/28/2012 5:56:10 PM
4	90000	8018.108	0.08909009	5.310	\\Uslan-chromperf\Active-data\CP20\1C20119.0005.BND	4/28/2012 6:05:42 PM
5	360000	30821.86	0.08561628	1.203	\\Uslan-chromperf\Active-data\CP20\1C20119.0006.BND	4/28/2012 6:15:42 PM

7E

CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories Contract:

Lab Code: Case No.: SAS No.: SDG No.:

Instrument: H3145A Init. Calib Date(s): 04/28/12 04/28/12

GC Column (1) : CTR1COLUMN ID: 1 (mm) Date Analyzed: 04/28/12

Lab File ID: 1C20119.0009.RAW Time Analyzed: 18:42

Lab Standard ID: CO2CXPO Initial Calibration: 1C20119

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT (ug/l)	NOM AMOUNT (ug/l)	%D
CARBON DIOXIDE	1.75	1.57	1.77	32691.99	35008.00	-6.6

Compounds 1 Average of %D: 6.6

FORM VII

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories
Contract:
Lab Code:
Case No.:
SAS No.:
SDG No.:
Instrument: H3145A
Init. Calib Date(s): 04/28/12 04/28/12
GC Column (1) : CTR1COLUMN ID: 1 (mm)
Date Analyzed: 07/24/12
Lab File ID: 11C20119.0003.RAW
Time Analyzed: 18:36
Lab Standard ID: CO2_3QE
Initial Calibration: 1C20119

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT (ug/l)	NOM AMOUNT (ug/l)	%D
CARBON DIOXIDE	1.68	1.57	1.77	31873.68	36000.00	-11

Compounds 1
Average of %D: 11

FORM VII

7E
CALIBRATION VERIFICATION SUMMARY

Lab Name: Lancaster Laboratories
Contract:
Lab Code:
Case No.:
SAS No.:
SDG No.:
Instrument: H3145A
Init. Calib Date(s): 04/28/12 04/28/12
GC Column (1) : CTR1COLUMN ID: 1 (mm)
Date Analyzed: 07/24/12
Lab File ID: 11C20119.0014.RAW
Time Analyzed: 20:28
Lab Standard ID: CO2_3QF
Initial Calibration: 1C20119

COMPOUND	RT	RT WINDOW FROM	TO	CALC AMOUNT (ug/l)	NOM AMOUNT (ug/l)	%D
CARBON DIOXIDE	1.67	1.57	1.77	33174.66	36000.00	-8

Compounds 1
Average of %D: 8

FORM VII

8D
ANALYTICAL SEQUENCE

Sequence: 1C20119 Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: CTR1COLUMN ID: 1

Instrument: H3145A

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	04/28/2012	17:23:58	1C20119
002	CO2_1AA	CO2_11232C	04/28/2012	17:34:02	1C20119
003	CO2_2AA	CO2_21232C	04/28/2012	17:43:58	1C20119
004	CO2_3AA	CO2_31232K	04/28/2012	17:53:33	1C20119
005	CO2_4AA	CO2_41232C	04/28/2012	18:03:04	1C20119
006	CO2_5AA	CO2_51232C	04/28/2012	18:13:08	1C20119
007	AA	IBLK	04/28/2012	18:22:45	1C20119
008	CO2MXBZ	CO2MX1232C	04/28/2012	18:32:27	1C20119
009	CO2CXPO	CO2CX1232C	04/28/2012	18:42:36	1C20119
010	PBLK15119	BLANKA	04/28/2012	18:57:21	1C20119
011	LCS15119	LCSA	04/28/2012	19:07:26	1C20119
012	LCSD15119	LCSDA	04/28/2012	19:16:56	1C20119
013	24203	6627692	04/28/2012	19:26:36	1C20119
014	24201	6627693	04/28/2012	19:36:44	1C20119
015	24202	6627694	04/28/2012	19:46:20	1C20119
016	25201	6628918	04/28/2012	19:55:55	1C20119
017	25202	6628919	04/28/2012	20:06:01	1C20119
018	25203	6628920	04/28/2012	20:15:41	1C20119
019	KELLE	6630540	04/28/2012	20:25:49	1C20119
020	CO2_3PF	CO2_31232K	04/28/2012	20:35:23	1C20119
021	STROU	6630541	04/28/2012	20:44:56	1C20119
022	CRY04	6630980	04/28/2012	20:55:05	1C20119
023	CRY03	6630981	04/28/2012	21:04:46	1C20119
024	CO2_3PG	CO2_31232K	04/28/2012	21:14:22	1C20119

8D
ANALYTICAL SEQUENCE

Sequence: 11C20119 Lab Name: Lancaster laboratories Contract:

Lab Code: Case No.: SAS No: SDG No.:

GC Column: CTR1COLUMN ID: 1

Instrument: H3145A

THIS ANALYTICAL SEQUENCE OF BLANKS, SAMPLES AND STANDARDS IS GIVEN BELOW:

	Sample Code No.	Lab Sample ID	Date Analyzed	Time Analyzed	Calibration File
001		CONDITIONER	07/24/2012	18:16:17	1C20119
002	CO2_3QE	CO2_31232V	07/24/2012	18:26:24	1C20119
003	CO2_3QE	CO2_31232V	07/24/2012	18:36:12	1C20119
004	PBLK35206	BLANKA	07/24/2012	18:46:06	1C20119
005	LCS35206	LCSA	07/24/2012	18:56:39	1C20119
006	P2882	6725733	07/24/2012	19:06:56	1C20119
007	CDJM4	6727319	07/24/2012	19:17:16	1C20119
008	53-82	6727810	07/24/2012	19:27:16	1C20119
009	23-82	6727812	07/24/2012	19:37:17	1C20119
010	21-82	6727814	07/24/2012	19:47:54	1C20119
011	21-82	6727815	07/24/2012	19:58:18	1C20119
012	21-82	6727816	07/24/2012	20:08:47	1C20119
013	24-82	6727822	07/24/2012	20:18:45	1C20119
014	CO2_3QF	CO2_31232V	07/24/2012	20:28:45	1C20119
015	34-82	6727824	07/24/2012	20:39:18	1C20119
016	34D82	6727826	07/24/2012	20:49:59	1C20119
017	9-82-	6727828	07/24/2012	20:59:52	1C20119
018	P5182	6728997	07/24/2012	21:10:29	1C20119
019	P2582	6728999	07/24/2012	21:20:27	1C20119
020	P5282	6729001	07/24/2012	21:30:26	1C20119
021	P4582	6729003	07/24/2012	21:41:16	1C20119
022	P4282	6729005	07/24/2012	21:51:39	1C20119
023	PD282	6729007	07/24/2012	22:01:36	1C20119
024	P4782	6729009	07/24/2012	22:11:37	1C20119
025	CO2_3QG	CO2_31232V	07/24/2012	22:22:23	1C20119

Sample Data

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LOQ/MDL Summary
EPH/Miscellaneous GC

SDG: AKF94

Fraction: CO2 by Headspace

08097: CO2 by Headspace Analyte Name	Default MDL	Default LOQ	Units
CO2 by Headspace	4,000	12,000	ug/l

Lancaster Laboratories-Single Component Data Summary

Sample Name: 6727319 CDJM4 Sample ID: AA **Batchnumber: 122060035A**
Sample Amount: 5 ml Total Volume: 5 ml Analyst: 2343 SDG: AKF94 State: AK
Analyses: 08097

Analysis Report (A)

Injected on : JUL 24, 2012 19:17:16
Instrument : CP20--H3145A
Result file : 11c20119.0007.RAW
Calibration file : 1c20119.CAL
Method file : CO2.MET

Peak name	Min	R.T.	Max	Height	Amount
CARBON DIOXIDE	1.57	1.68	1.77	4260	50361.225585

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
CARBON DIOXIDE	A	50361.225585	12000	4000			

Units: ug/l

Reviewed by: EM 23LB
Date: 7/25/12

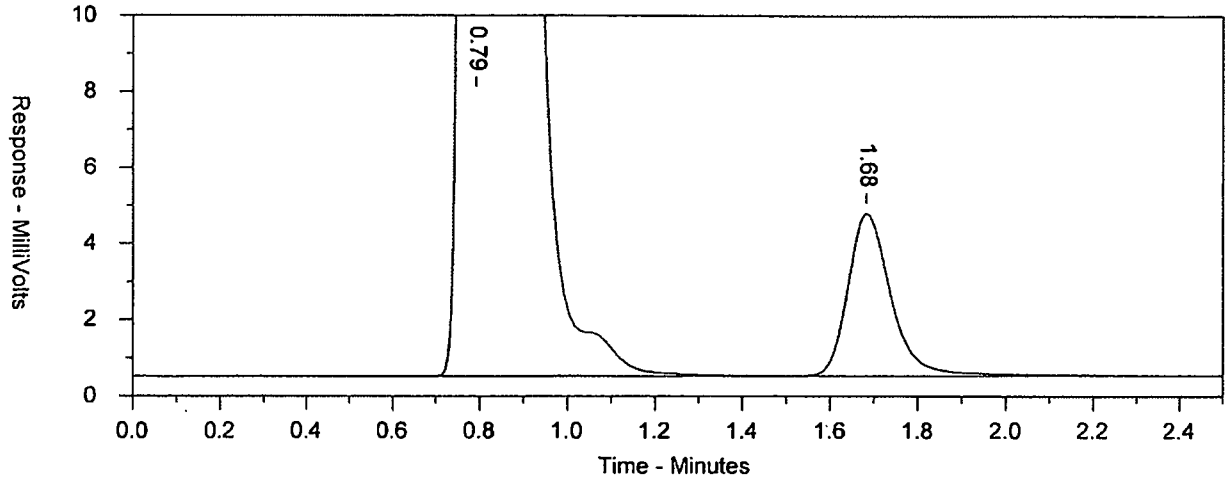
Verified by: Michele D. Hamilton
Michele D. Hamilton
Senior Chemist Group Leader
Date: JUL 26 2012

* Recovery outside QC Limits

Printed on: 7/24/2012 19:20:01

6727319 AACDJM4 T 122060035A 08097 SW-846 8000B

—— \\Uslan-chromperf\Active-data\CP20\11c20119.0007.RAW



Sample Name = 6727319 AACDJM4 T 122060035A 08097 SW-846 8000B

Instrument = CP20
Detector = H3145A

Raw File Name = \\Uslan-chromperf\Active-data\CP20\11c20119.0007.RAW
Method File Name = \\USLAN-CHROMPERF\ACTIVE-DATA\CP20\CO2.MET
Calibration File Name = Y:\CP20\1c20119.CAL
Run Time = 2.5
Amount Injected = 1
Peak Width = 0.05
Operator = 2343

Time injected = 7/24/2012 7:17:16 PM
Dilution Factor = 5
Peak Threshold = 0

Incubate 5 minutes at 35C; 40C for .1 minute; 40C/min to 80C; Hold 1 min
Column: CTR 1 COLUMN; 6' X 1/4" X .210 STAINLESS STEEL

	Ret. Time	Amount	Amt %	Area	Height
CARBON DIOXIDE	1.68	50361.23	100.000	29313	4260.469

Raw QC Data

Lancaster Laboratories-Single Component Data Summary

Sample Name: BLANKA 7/24/12 PBLK35206 Sample ID: AA **Batchnumber: 122060035A**
Sample Amount: 5 ml Total Volume: 5 ml Analyst: 2343 SDG: State:
Analyses: 08097

Analysis Report (A)

Injected on : JUL 24, 2012 18:46:06
Instrument : CP20--H3145A
Result file : 11c20119.0004.RAW
Calibration file : 1c20119.CAL
Method file : CO2.MET

Summary Report

Compound Name	Column	Amount Found	LOQ	MDL	Qualifiers	%RPD	Comments
CARBON DIOXIDE			<12000	<4000			

Units: ug/l

Reviewed by: EM 7/25/12
Date: 7/25/12

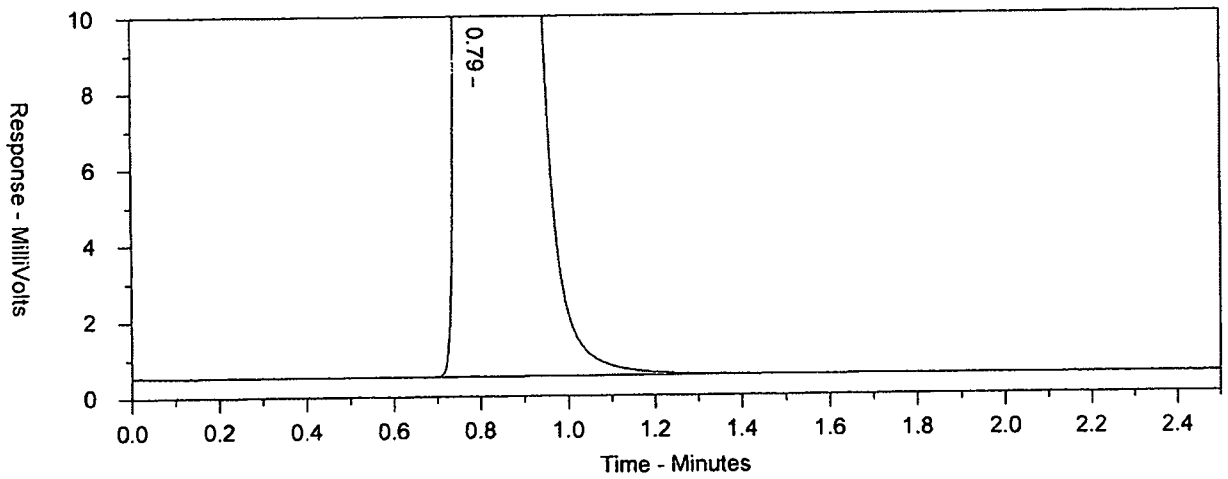
Verified by: Michele D. Hamilton
Michele D. Hamilton
Senior Chemist Group Leader
Date: JUL 26 2012

* Recovery outside QC Limits

Printed on: 7/24/2012 18:48:53

BLANKA 7/24/12 AAPBLK35206 BLK 122060035A 08097 SW-846 8000B

—— \\Uslan-chromperf\Active-data\CP20\11c20119.0004.RAW



Sample Name = BLANKA 7/24/12 AAPBLK35206 BLK 122060035A 08097 SW-846 8000B

Instrument = CP20
Detector = H3145A

Raw File Name = \\Uslan-chromperf\Active-data\CP20\11c20119.0004.RAW
Method File Name = \\USLAN-CHROMPERF\ACTIVE-DATA\CP20\CO2.MET
Calibration File Name = Y:\CP20\1c20119.CAL
Run Time = 2.5
Amount Injected = 1
Peak Width = 0.05
Operator = 2343

Time injected = 7/24/2012 6:46:06 PM
Dilution Factor = 5
Peak Threshold = 0

Incubate 5 minutes at 35C; 40C for .1 minute; 40C/min to 80C; Hold 1 min
Column: CTR 1 COLUMN; 6' X 1/4" X .210 STAINLESS STEEL

Ret. Time	Amount	Amt %	Area	Height

Extraction/Distillation/Digestion Logs

Organic Extraction Batchlog Assigned to: 2343 Elizabeth Marin Reviewed by: MDH701 Start Date: 7/24/12 Start time: 18:00

122060035A

Tech 1: EM1313 Tech 2:

Dept: 32	Prep Analysis: 00000										CO2 by Headspace
QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
6727815MS	21-82	5			MS99173B	0.1	5			65A	
6727816MSD	21-82	5			MS99173B	0.1	5			65A	
BLANKA	PBLK35206	5					5				
LCSA	LCS35206	5			MS99173B	0.10	5				

Solvent Used	Lot No.
Dilwater	Inhouse

Spike Solutions: MS99173B Witness: CO2 SPIKE

	Sample #	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6725733	P2882	5			5			65A		08097	07/31/2012	P
2	6727319	CDJM4	5			5			65A		08097	07/30/2012	P
3	6727810	53-82	5			5			65A		08097	08/01/2012	P
4	6727812	23-82	5			5			65A		08097	08/01/2012	P
5	6727814BKG	21-82	5			5			65A		08097	08/01/2012	P
6	6727822	24-82	5			5			65A		08097	08/01/2012	P
7	6727824	34-82	5			5			65A		08097	08/01/2012	P
8	6727826	34D82	5			5			65A		08097	08/01/2012	P
9	6727828	9-82-	5			5			65A		08097	08/01/2012	P
10	6728997	P5182	5			5			65A		08097	08/02/2012	P
11	6728999	P2582	5			5			65A		08097	08/02/2012	P
12	6729001	P5282	5			5			65A		08097	08/02/2012	P
13	6729003	P4582	5			5			65A		08097	08/02/2012	P
14	6729005	P4282	5			5			65A		08097	08/02/2012	P
15	6729007	PD282	5			5			65A		08097	08/02/2012	P
16	6729009	P4782	5			5			65A		08097	08/02/2012	P

Rack ID:		Work Station	
Internal Standard		Balance #	

S-bath ID	C	S-bath ID	C	N-Evap	C	M-vap	C	122060035A

Documented temps are NIST corrected.

B10122060035A

DF = Dilution Factor FV = Final Volume

TPH-DRO by GC Data

Case Narrative/Conformance Summary

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Case Narrative/Conformance Summary

CLIENT: ChevronTexaco
SDG: AKF94

EPH/Miscellaneous GC

Fraction: TPH-DRO by GC

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
6727319	MW-4-W-07182012	X		10	
6727320	MW-4-WD-07182012	X		10	Field Duplicate Sample

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

LCS/LCSD

(Sample number(s): 6727319: Analysis: 01741)
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. The following corrective action was taken:
The sample was re-analyzed within the method required holding time, and LCS/LCSD recoveries are outside the QC acceptance limits. Similar results were obtained in both trials.
The original results are reported.

(Sample number(s): 6727320: Analysis: 01741)
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.

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Case Narrative/Conformance Summary

CLIENT: ChevronTexaco
SDG: AKF94

EPH/Miscellaneous GC

Fraction: TPH-DRO by GC

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 8-13-2012 by Audrey K. McClune
(Date)

Audrey K. McClune
Specialist

Quality Control and Calibration Summary Forms

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Quality Control Reference List
EPH/Miscellaneous GC

CLIENT: ChevronTexaco
SDG: AKF94

Fraction: TPH-DRO by GC

Analysis	Batch Number	Sample Number	Analysis Date
TPH-DRO AK water C10-C25	122060032A	PBLK32206	07/26/2012 01:25:00
		LCS32206	07/26/2012 01:54:00
		LCSD32206	07/26/2012 02:23:00
		6727319	07/26/2012 23:23:00
		6727320	07/26/2012 23:51:00
TPH-DRO AK water C10-C25	122090011A	PBLK11209	07/28/2012 18:06:00
		LCS11209	07/28/2012 18:35:00
		LCSD11209	07/28/2012 19:03:00
		6727319RE	07/28/2012 20:29:34

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Quality Control Summary
Method Blank
EPH/Miscellaneous GC
SDG: AKF94
Matrix: LIQUID

Fraction: TPH-DRO by GC

122060032A / PBLK32206 **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
TPH-DRO AK water C10-C25	07/26/12	N.D.	mg/l	0.050	0.25

122090011A / PBLK11209 **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
TPH-DRO AK water C10-C25	07/28/12	N.D.	mg/l	0.050	0.25

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Quality Control Summary
Surrogates
EPH/Miscellaneous GC
SDG: AKF94
Matrix: LIQUID

Fraction: TPH-DRO by GC

122060032A	**Orthoterphenyl**	
	Spike Added	12 mg/l
Sample	**% Recovery**	**Limits**
PBLK32206	86	60 - 120
LCS32206	86	60 - 120
LCSD32206	80	60 - 120
6727319	132	50 - 150
6727320	124	50 - 150

122090011A	**Orthoterphenyl**	
	Spike Added	12 mg/l
Sample	**% Recovery**	**Limits**
PBLK11209	91	60 - 120
LCS11209	81	60 - 120
LCSD11209	90	60 - 120
6727319RE	95	50 - 150

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Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: AKF94
Matrix: LIQUID

EPH/Miscellaneous GC
Fraction: TPH-DRO by GC

LCS: LCS32206 LCSD: LCSD32206	Batch: **122060032A** (Sample number(s): 6727319-6727320)							
Analyte	**Spike Added mg/l**	**LCS Conc mg/l**	**LCSD Conc mg/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
TPH-DRO AK water C10-C25	0.8	0.62	0.58	78	72 *	75-125	7	20

LCS: LCS11209 LCSD: LCSD11209	Batch: **122090011A** (Sample number(s): 6727319)							
Analyte	**Spike Added mg/l**	**LCS Conc mg/l**	**LCSD Conc mg/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
TPH-DRO AK water C10-C25	0.8	0.58	0.64	73 *	80	75-125	10	20

File Name: Y:\CP24\AKDL192A.CAL
Version: 5

Creator: HEW2027
Description: ALASKA DRO
Reason for change:

HEW2027
7/12/12

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: PPM
No default component

uscal L192.0004-19.RAW
L192.0027.RAW MDL
L192.0028.RAW ICV

Method of calculating data point averages: Current update equal to cal data
Print calibration update report

✓ 7/13/12

All levels are normal data points.

1 DRO RF C10-<C25
Expected retention time: 0.001 minutes
Search window: 0 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 23264.69

Single peak quantification by area

Y = 23264.69 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.956647
Average error: 5.522%
Average CF: 23264.69
RSD: 7.806%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	100	2435460	24354.6	4.685	Manual	7/12/2012 3:58:58 PM
2	400	9671504	24178.76	3.929	Manual	7/12/2012 3:59:08 PM
3	800	1.88982E+07	23622.75	1.539	Manual	7/12/2012 3:59:13 PM
4	1600	3.85834E+07	24114.63	3.653	Manual	7/12/2012 3:59:20 PM
5	3200	6.416874E+07	20052.73	-13.806	Manual	7/12/2012 3:59:25 PM

2 C10
Expected retention time: 2.71 minutes
Search window: 0.05 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by area

Y = 0.0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 1
Average error: 0.000%
Average CF: 0
RSD: 0.000%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1	0	0	0.000	Manual	7/12/2012 3:57:42 PM
2	(-1)	0	--	--	Manual	7/12/2012 3:57:46 PM
3	(-1)	0	--	--	\\USLAN-CHROMPERF\ACTIVE-DATA\CP24\\L122B.0012.BND	5/3/2012 8:57:46 PM
4	(-1)	0	--	--	Manual	7/12/2012 3:57:48 PM
5	(-1)	0	--	--	\\USLAN-CHROMPERF\ACTIVE-DATA\CP24\\L122B.0014.BND	5/3/2012 8:57:50 PM

3 Capric Acid
Expected retention time: 6.2 minutes
Search window: 0.1 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 14126.02

Single peak quantification by area

Y = 14126.02 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9662766
Average error: 12.708%
Average CF: 14126.02
RSD: 18.263%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	5.1266	73506.77	14338.31	1.503	Manual	7/12/2012 3:56:53 PM
2	10.2531	98820.34	9638.094	-31.771	Manual	7/12/2012 3:57:00 PM
3	25.6329	386740.6	15087.66	6.808	Manual	7/12/2012 3:57:06 PM
4	41.0126	651300.5	15880.5	12.420	Manual	7/12/2012 3:57:19 PM
5	51.2657	804130.3	15685.54	11.040	Manual	7/12/2012 3:57:25 PM

4 o-Terphenyl SURR
Expected retention time: 9.92 minutes
Search window: 0.05 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 26535.37

Single peak quantification by area

Y = 26535.37 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9829946
Average error: 8.931%
Average CF: 26535.37
RSD: 10.620%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	48014.59	24007.29	-9.527	Manual	7/12/2012 3:58:06 PM
2	8	243999	30499.88	14.940	Manual	7/12/2012 3:58:14 PM
3	16	455933.3	28495.83	7.388	Manual	7/12/2012 3:58:21 PM
4	20	499674.5	24983.72	-5.847	Manual	7/12/2012 3:58:28 PM
5	40	987605.2	24690.13	-6.954	Manual	7/12/2012 3:58:35 PM

5 C25
Expected retention time: 12.19 minutes
Search window: 0.1 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by area

Y = 0.0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 1
Average error: 0.000%
Average CF: 0
RSD: 0.000%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1	0	0	0.000	Manual	7/12/2012 3:57:48 PM
2	(-1)	0	--	--	Manual	7/12/2012 3:57:49 PM
3	(-1)	0	--	--	Manual	7/12/2012 3:57:50 PM
4	(-1)	0	--	--	Manual	7/12/2012 3:57:50 PM
5	(-1)	0	--	--	Manual	7/12/2012 3:57:52 PM

Sample Data

eurofins | Lancaster Laboratories

LOQ/MDL Summary
EPH/Miscellaneous GC

SDG: AKF94

Fraction: TPH-DRO by GC

01741: TPH-DRO AK water C10-C25 Analyte Name	Default MDL	Default LOQ	Units
TPH-DRO AK water C10-C25	0.050	0.25	mg/l

Lancaster Laboratories Range Data Summary

Sample Name: 6727319DF10 CDJM4 Sample ID: AB **Batchnumber:** 122060032A
Sample Amount: 1053. Total Volume: 10. ml Analyst: 2268 SDG: AKF94 State: AK
Analyses: 01741 02244

Injection Summary

Injected on : 7/26/2012 23:23:23
Instrument : CP24--H5386A
Result file : L208.0006.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 132% (50-150) Conc.: 15.083

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	35866125	14.6234	2.3742	0.4748		ppm
☐ o-Terphenyl SURR	9.91 (9.87 - 9.97)	42146	15.0830				ppb

Comments: LCSD out low see 1220900114

Reviewed by: th
Date: 8/2/12

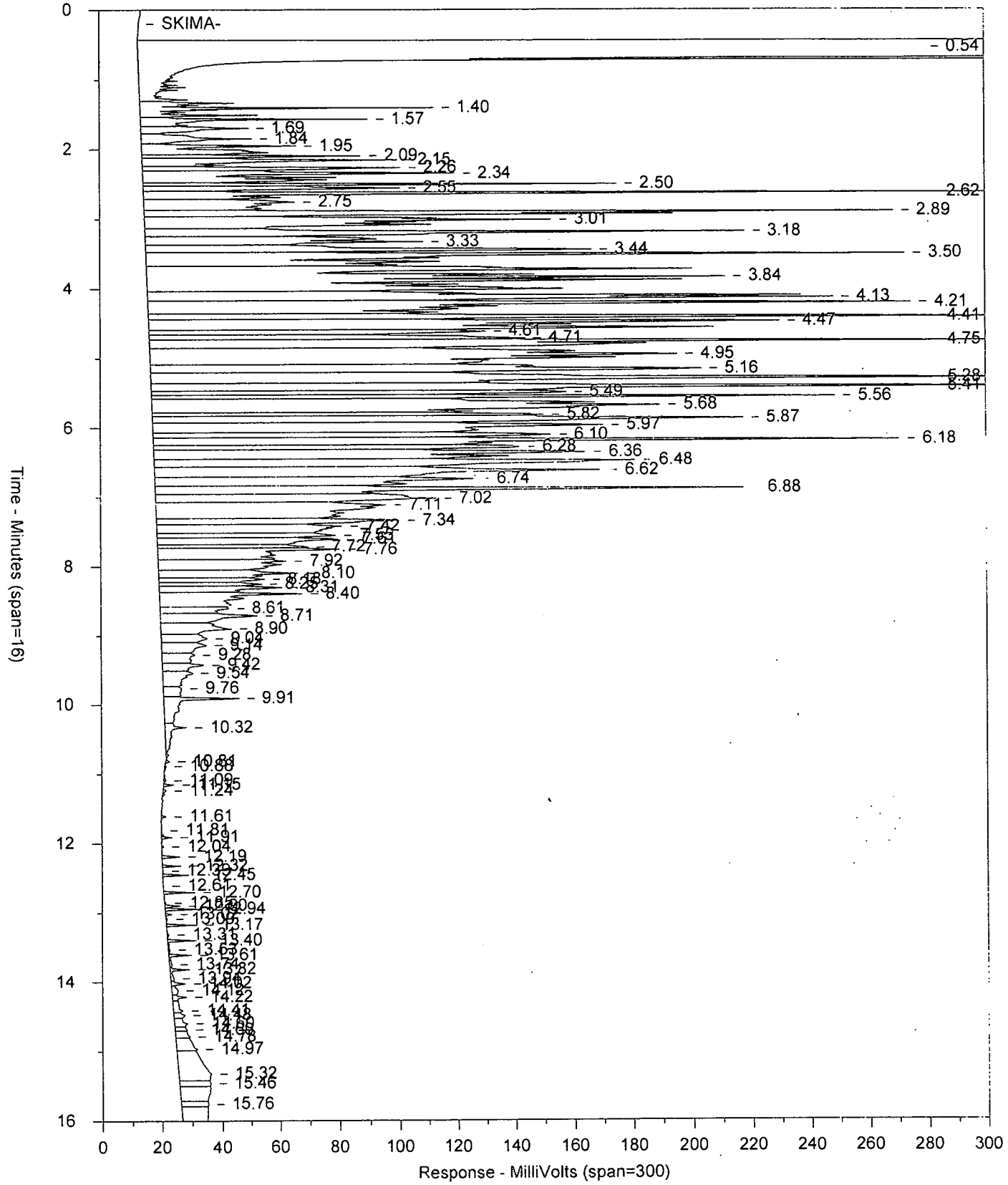
Verified by:
Date: Tracy A. Cole

AUG 09 2012

Tracy A. Cole
Senior Specialist

Sample: 6727319DF10 ABCDJM4 T 122060032A 01741 AK102/AK103 04/08/02
File: L208.0006.RAW

—— 6727319DF10 ABCDJM4 T 122060032A 01741 AK 102/AK 103 04/08/02



Sample: 6727319DF10 ABCDJM4 T 122060032A 01741 AKK0024K0803 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1053
Analyst: 2268

Injected on: 7/26/2012 11:23:23 PM
GC Column: ZB5 30m X 0.32mm X 0.25un

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
14	2.75	C10	0.00	363003.5
40	6.18	Capric Acid	627.74	933750.9
70	9.91	o-Terphenyl SURR	45.65	127557.1
81	12.19	C25	0.00	7437.498

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	709.085	35866120.0
2	9.87	9.97	48.071	127557.1

********** RESULTS TABLE **********

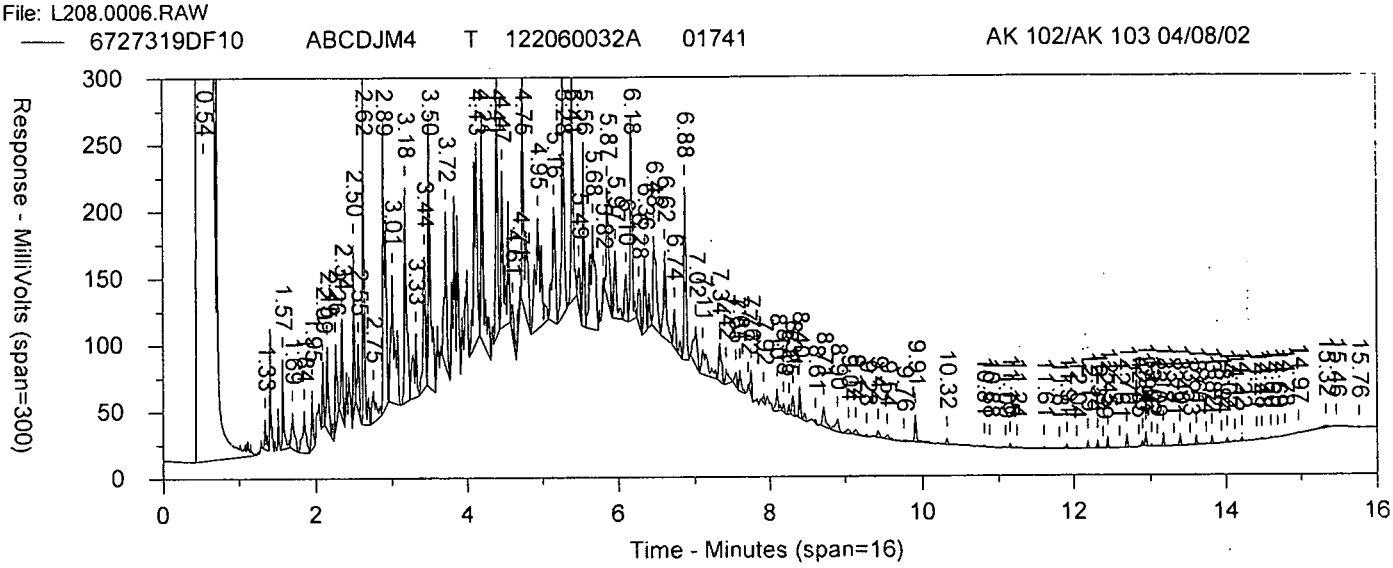
C10-<C25 DRO AREA = 3.586612E+07
C10-<C25 AMT = 14.58853

FILES:

Area File: L208.0006.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/26/2012 11:43:23 PM
File reported on: 7/26/2012 at 11:43:29 PM

Chrom Perfect Chromatogram Report

Replot: 6727319DF10 ABCDJM4 T 122060032A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L208.0006.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1053
Analyst: 2268

Injected on: 7/26/2012 11:23:23 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
14	2.75	C10	0.00	93652.09
40	6.18	Capric Acid	0.18	267040.1
70	9.91	o-Terphenyl SURR	0.02	42145.85
81	12.19	C25	0.00	7437.498

O-TERPHENYL % RECOVERY = 132.3575 %

Capric Acid % recovery = 38.26746 %

FILES:

Area File: L208.0006.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/26/2012 11:43:23 PM
File reported on: 7/26/2012 at 11:43:35 PM

Lancaster Laboratories Range Data Summary

Sample Name: 6727319RDF10 CDJM4 Sample ID: AB **Batchnumber:** 122090011A
Sample Amount: 1042. Total Volume: 10. ml Analyst: 2268 SDG: AKF94 State: AK
Analyses: 01741 02244

Injection Summary

Injected on : 7/28/2012 20:29:34
Instrument : CP24--H5386A
Result file : L210.0010.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 95% (50-150) Conc.: 10.967

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	25369998	10.4529	2.3992	0.4798		ppm
☐ o-Terphenyl SURR	9.90 (9.87 - 9.97)	30325	10.9670				ppb

Comments: RX in-hold

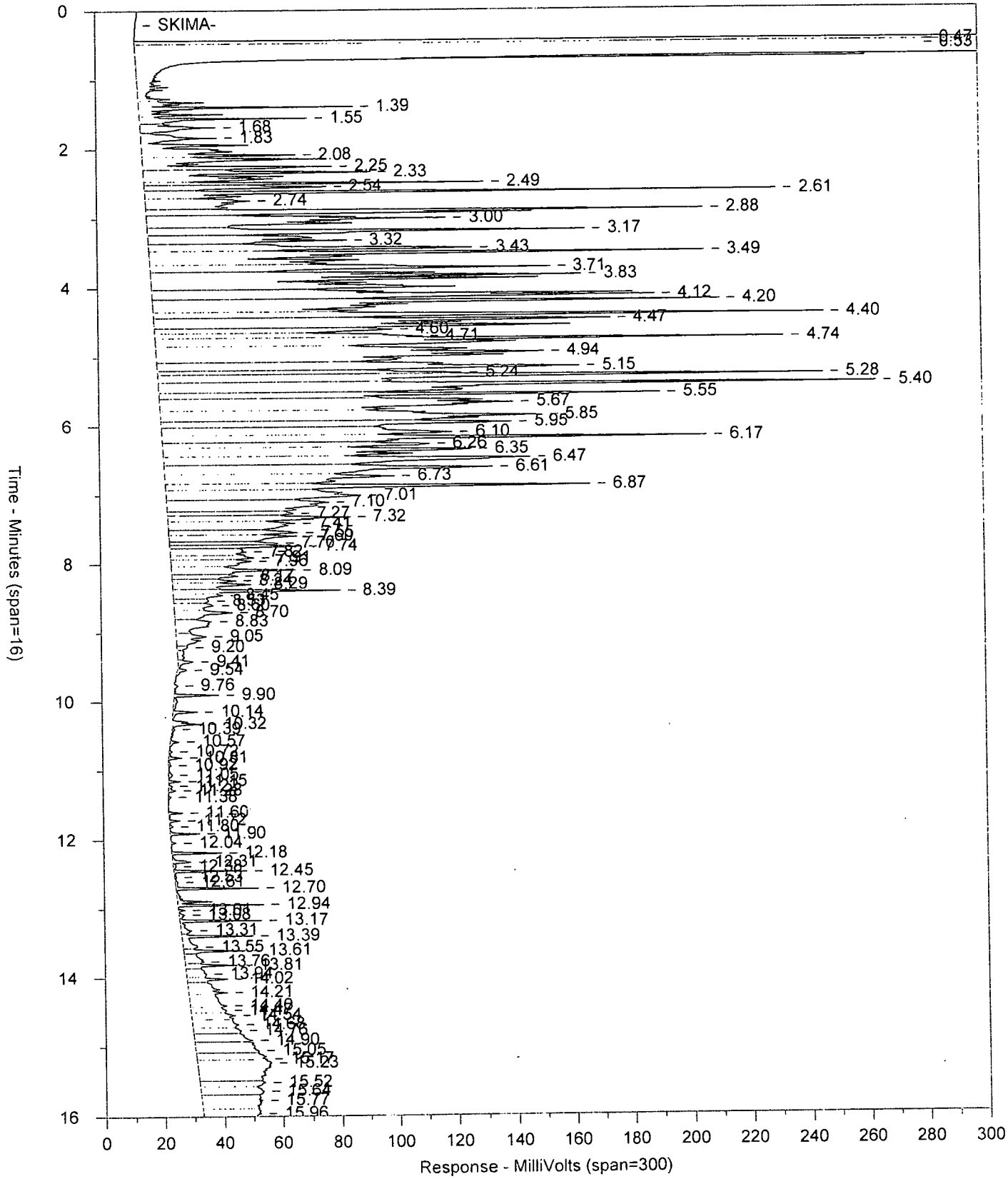
Reviewed by: JH
Date: 8/6/12

Verified by: Tracy A. Cole
Date: AUG 09 2012

Tracy A. Cole
Senior Specialist

Chrom Perfect Chromatogram Report

Sample: 6727319RDF10 ABCDJM4 T 122090011A 01741 AK 102/AK 103 04/08/02
File: L210.0010.RAW
—— 6727319RDF10 ABCDJM4 T 122090011A 01741 AK 102/AK 103 04/08/02



AKF94 0092

Chrom Perfect Chromatogram Report

Sample: 6727319RDF10 ABCDJM4 T 122090011A 01741 AAK1022A103 03 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1042
Analyst: 2268

Injected on: 7/28/2012 8:29:34 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
13	2.74	C10	0.00	250935.4
39	6.17	Capric Acid	448.47	660118
73	9.90	o-Terphenyl SURR	10.97	30324.97
91	12.18	C25	0.00	20397.32

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	478.735	25370000.0
2	9.87	9.97	11.428	30325.0

********** RESULTS TABLE **********

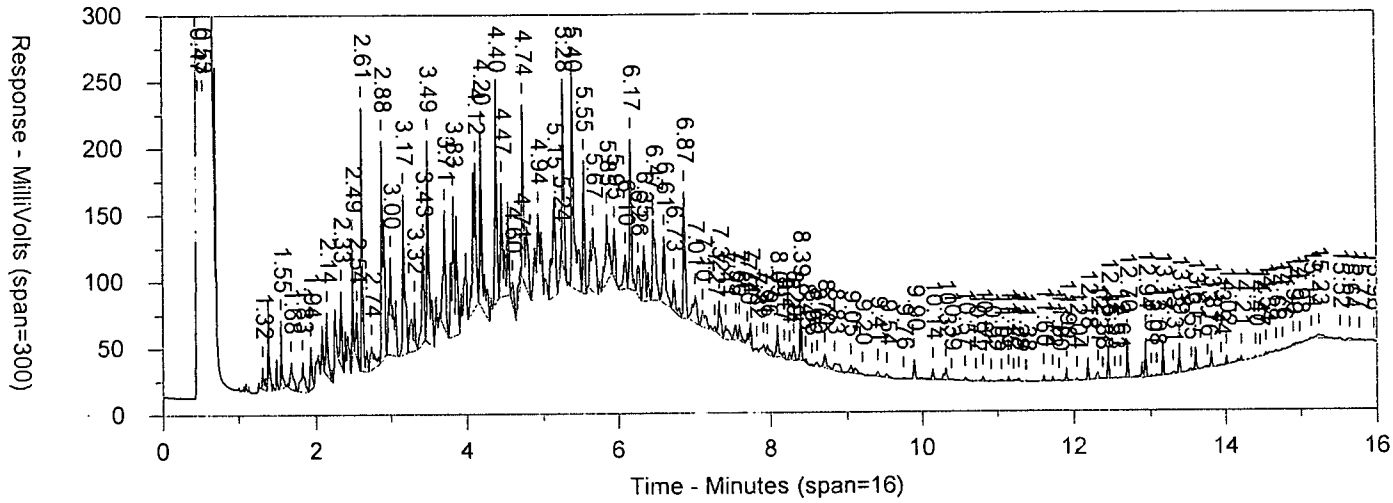
C10-<C25 DRO AREA = 2.537E+07
C10-<C25 AMT = 10.45288

FILES:

Area File: L210.0010.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/28/2012 8:49:35 PM
File reported on: 7/30/2012 at 6:35:00 PM

Chrom Perfect Chromatogram Report

Replot: 6727319RDF10 ABCDJM4 T 122090011A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L210.0010.RAW
—— 6727319RDF10 ABCDJM4 T 122090011A 01741 AK 102/AK 103 04/08/02



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1042
Analyst: 2268

Injected on: 7/28/2012 8:29:34 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
13	2.74	C10	0.00	71297.9
39	6.17	Capric Acid	0.13	197318.7
73	9.90	o-Terphenyl SURR	0.01	30324.97
91	12.18	C25	0.00	19840.63

O-TERPHENYL % RECOVERY = 95.23444 %

Capric Acid % recovery = 28.27623 %

FILES:

Area File: L210.0010.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/28/2012 8:49:35 PM
File reported on: 7/30/2012 at 6:36:00 PM

Lancaster Laboratories Range Data Summary

Sample Name: 6727320DF10 CDJ4D Sample ID: AB **Batchnumber:** 122060032A
Sample Amount: 1050. Total Volume: 10. ml Analyst: 2268 SDG: AKF94 State: AK
Analyses: 01741 02244

Injection Summary

Injected on : 7/26/2012 23:51:53
Instrument : CP24--H5386A
Result file : L208.0007.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 124% (50-150) Conc.: 14.141

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	29937767	12.2394	2.381	0.4762		ppm
☐ o-Terphenyl SURR	9.91 (9.87 - 9.97)	39399	14.1410				ppb

Comments:

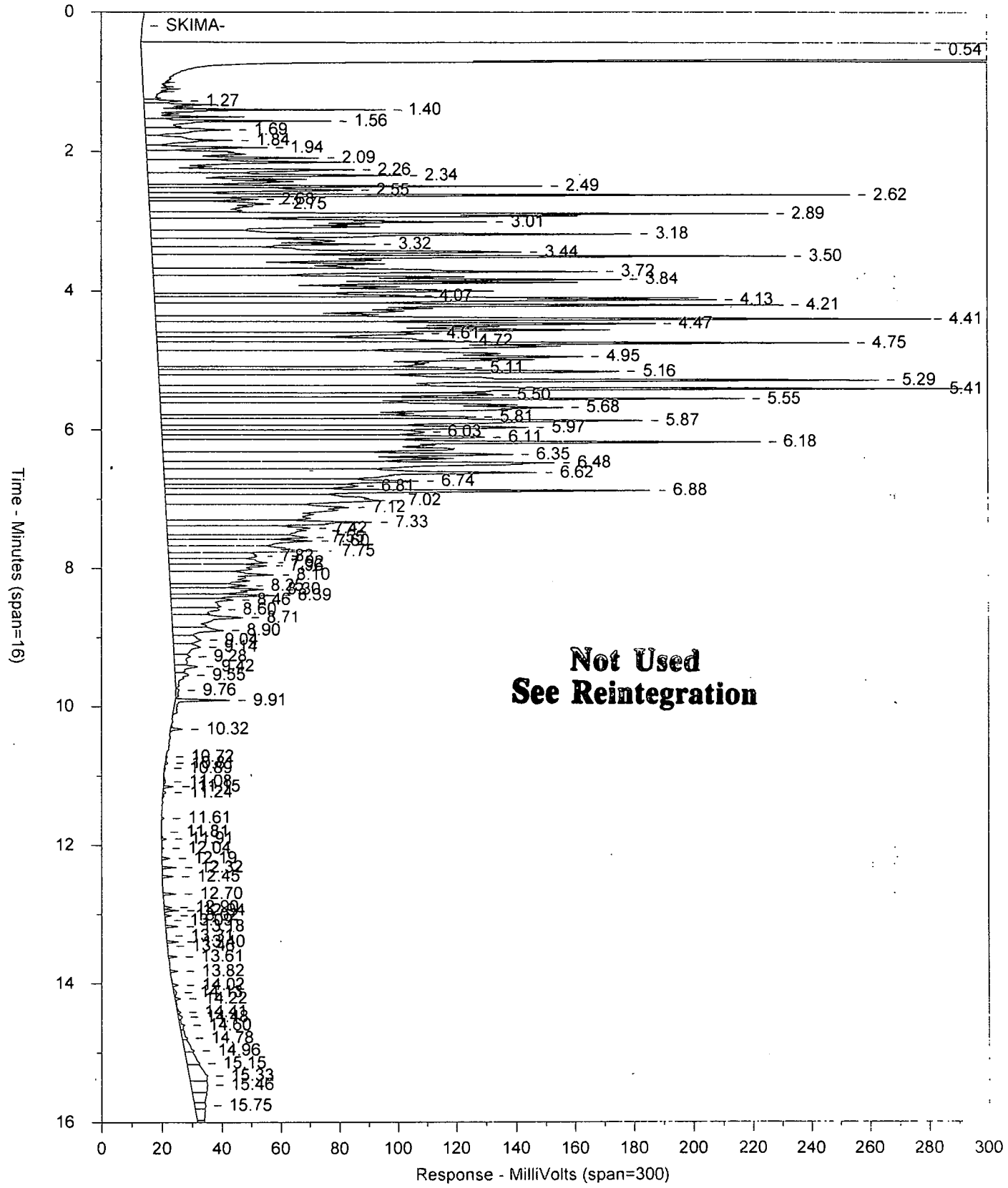
Reviewed by: JL
Date: 7/27/12

Verified by: Tracy A. Cole
Date: JUL 30 2012

Tracy A. Cole
Senior Specialist

Sample: 6727320DF10 ABCDJ4D T 122060032A 01741 AK102/AK103 04/08/02
File: L208.0007.RAW

—— 6727320DF10 ABCDJ4D T 122060032A 01741 AK 102/AK 103 04/08/02



Chrom Perfect Chromatogram Report

Sample: 6727320DF10 ABCDJ4D T 122060032A 01741 AKA02K1003 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/26/2012 11:51:53 PM
GC Column: ZB5 30m X 0.32mm X 0.25un

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
14	2.68	C10	0.00	82895.23
45	6.18	Capric Acid	755.00	1119847
76	9.91	o-Terphenyl SURR	14.14	39398.96
88	12.19	C25	0.00	3675.518

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	807.602	28345670.0
2	9.87	9.97	14.848	39399.0

********** RESULTS TABLE **********

C10-<C25 DRO AREA = 2.834567E+07
C10-<C25 AMT = 11.58767

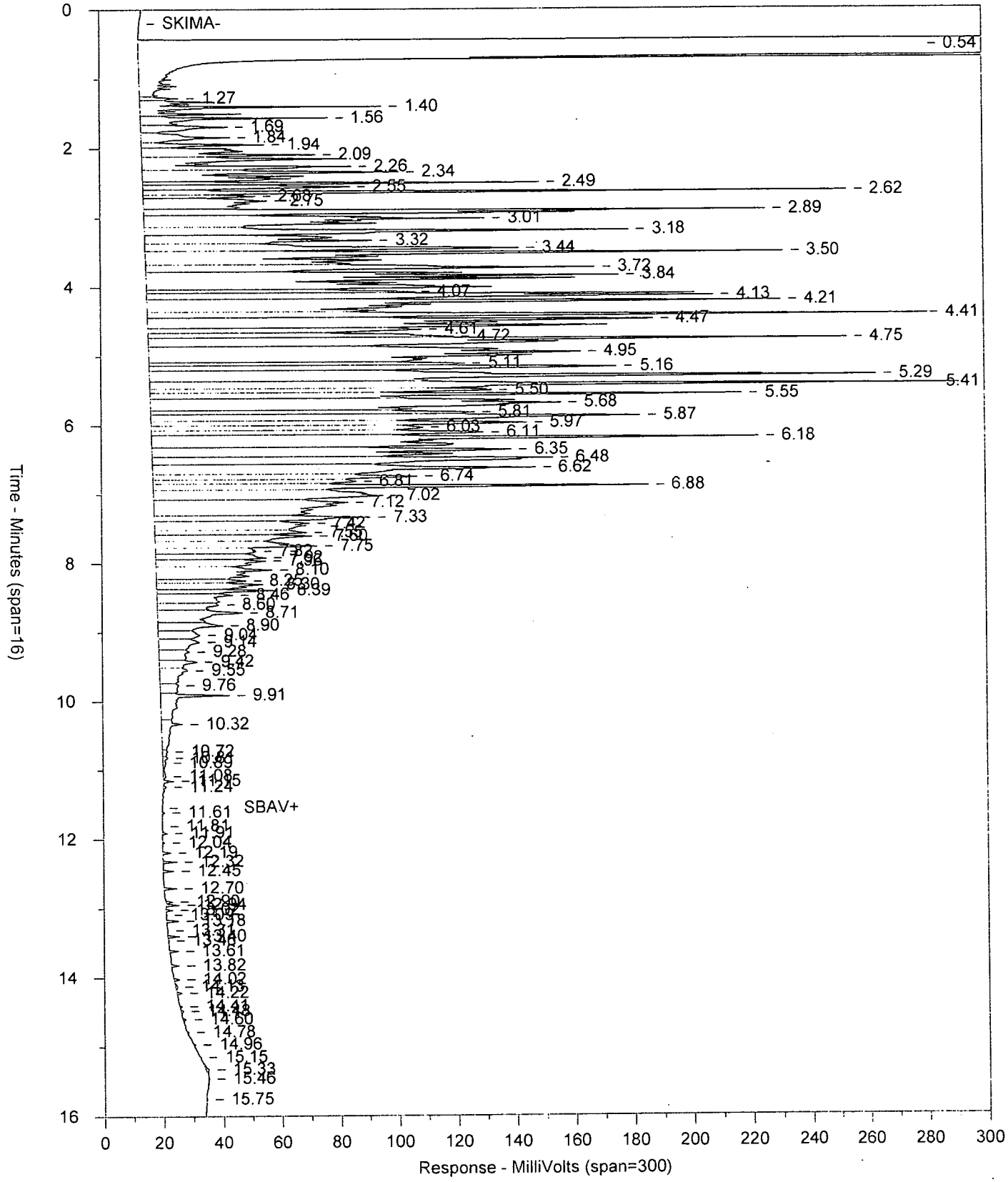
FILES:

Area File: L208.0007.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/27/2012 12:11:54 AM
File reported on: 7/27/2012 at 12:11:59 AM

Not Used
See Reintegration

Sample: 6727320DF10 ABCDJ4D T 122060032A 01741 AK102/AK103 04/08/02
File: L208.0007.RAW

6727320DF10 ABCDJ4D T 122060032A 01741 AK 102/AK 103 04/08/02



Chrom Perfect Chromatogram Report

Sample: 6727320DF10 ABCDJ4D T 122060032A 01741 AKAK022K003 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/26/2012 11:51:53 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
14	2.68	C10	0.00	86428.61
45	6.18	Capric Acid	778.54	1154761
76	9.91	o-Terphenyl SURR	48.60	135401.4
88	12.19	C25	0.00	3675.518

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	868.497	29937770.0 M
2	9.87	9.97	51.027	135401.4

********** RESULTS TABLE **********

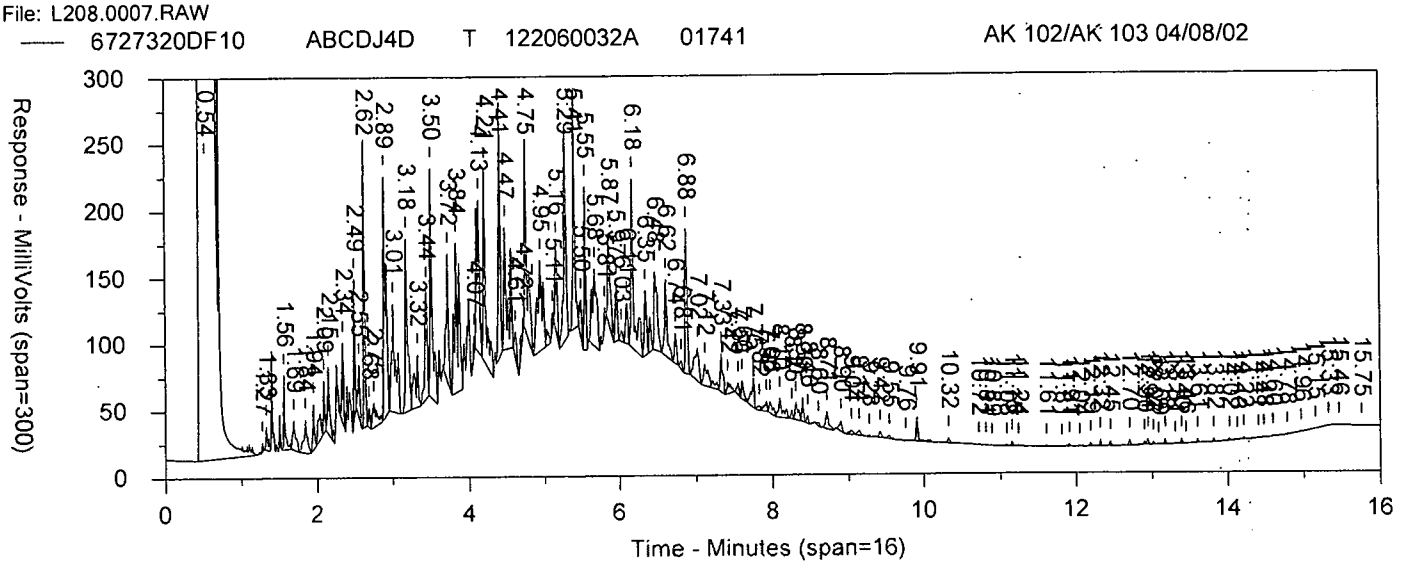
C10-<C25 DRO AREA = 2.993777E+07
C10-<C25 AMT = 12.20012

FILES:

Area File: L208.0007.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/27/2012 5:11:24 PM
File reported on: 7/27/2012 at 5:11:26 PM

M = Manually Integrated
Analyst [illegible] 7/27/12
Approved by [illegible] 7-30-12
Circle Reason 1 (2) 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other _____

Replot: 6727320DF10 ABCDJ4D T 122060032A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L208.0007.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/26/2012 11:51:53 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
14	2.68	C10	0.00	21408.34
45	6.18	Capric Acid	0.22	326063.7
76	9.91	o-Terphenyl SURR	0.01	39398.96
88	12.19	C25	0.00	3675.518

O-TERPHENYL % RECOVERY = 123.731 %

Capric Acid % recovery = 46.72568 %

FILES:

Area File: L208.0007.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/27/2012 12:11:54 AM
File reported on: 7/27/2012 at 12:12:05 AM

Standards Data

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\Uslan-chromperf\active-data\CP24\L192.seq

Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Number of Entries: 31

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L192.01R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
2	CONDITIONER	2	MISC	AA	L192.02R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
3	CONDITIONER	3	MISC	AA	L192.03R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
4	AKRTX1232B	4	CCAL	WH	L192.04R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
5	CAPR11232B	5	ICAL	AA	L192.05R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
6	CAPR21232C	6	ICAL	AA	L192.06R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
7	CAPR31232B	7	ICAL	AA	L192.07R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
8	CAPR41232B	8	ICAL	AA	L192.08R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
9	CAPR51232B	9	ICAL	AA	L192.09R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
10	AKSS11232A	10	ICAL	AA	L192.10R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
11	AKSS21232A	11	ICAL	AA	L192.11R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
12	AKSS31232A	12	ICAL	AA	L192.12R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
13	AKSS41232A	13	ICAL	AA	L192.13R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
14	AKSS51232A	14	ICAL	AA	L192.14R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
15	1FUL11232D	15	ICAL	AA	L192.15R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
16	1FUL21232C	16	ICAL	AA	L192.16R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
17	1FUL31232G	17	ICAL	AA	L192.17R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
18	1FUL41232C	18	ICAL	AA	L192.18R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
19	1FUL51232C	19	ICAL	AA	L192.19R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
20	MECL2	20	MISC	AA	L192.20R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
21	AKSW11232A	21	ICAL	AA	L192.21R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
22	AKSW21232A	22	ICAL	AA	L192.22R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
23	AKSW31232A	23	ICAL	AA	L192.23R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
24	AKSW41232A	24	ICAL	AA	L192.24R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
25	AKSW51232A	25	ICAL	AA	L192.25R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
26	MECL2	26	MISC	AA	L192.26R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
27	1MDLX1232C	27	CCAL	LQ	L192.27R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
28	AKCDX1232B	28	CCAL	BN	L192.28R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
29	AKMDX1232B	29	CCAL	CL	L192.29R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
30	AKCRX1232B	30	CCAL	BO	L192.30R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
31	AKRTX1232B	31	CCAL	WI	L192.31R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	

Set-up by: Kathy Williams Date: 7/12/12

AKF94 0102

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24\L207.seq

Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Number of Entries: 31

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L207.01R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
2	AKRTX1232C	2	CCAL	WR	L207.02R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
3	AKFL41232B	3	CCAL	UK	L207.03R	:P24\AKDLSTD.MET	1	1	1	0	1220699999	
4	BLANKA 7/25/12	4	BLK	AA	L207.04R	P24\AKDLSUM.MET	1000	1	1	0	122070011A	01741
5	LCSA 7/25/12	5	LCS	AA	L207.05R	P24\AKDLSUM.MET	1000	1	1	0	122070011A	01741
6	LCSDA 7/25/12	6	LCSD	AA	L207.06R	P24\AKDLSUM.MET	1000	1	1	0	122070011A	01741
7	6723653R	7	T	AA	L207.07R	P24\AKDLSUM.MET	1045	1	1	0	122070011A	01741
8	MECL2	8	MISC	AA	L207.08R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
9	BLANKA 7/25/12	9	BLK	AA	L207.09R	P24\AKDLSUM.MET	1000	1	1	0	122060032A	01741
10	LCSA 7/25/12	10	LCS	AA	L207.10R	P24\AKDLSUM.MET	1000	1	1	0	122060032A	01741
11	LCSDA 7/25/12	11	LCSD	AA	L207.11R	P24\AKDLSUM.MET	1000	1	1	0	122060032A	01741
12	6727319	12	T	AA	L207.12R	P24\AKDLSUM.MET	1053	1	1	0	122060032A	01741
13	6727320	13	T	AA	L207.13R	P24\AKDLSUM.MET	1050	1	1	0	122060032A	01741
14	6729226	14	T	AA	L207.14R	P24\AKRLSUM.MET	1052	1	1	0	122060032A	01741
15	MS1220732B	15	MISC	AA	L207.15R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
16	AKFL21232B	16	CCAL	WL	L207.16R	:P24\AKDLSTD.MET	1	1	1	0	1220699999	
17	AKRTX1232C	17	CCAL	WS	L207.17R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
18	FLA_21232C	18	CCAL	ZU	L207.18R	:P24\FLALSTD.MET	1	1	1	0	1220699999	
19	BLANKA 7/21/12S	19	BLK	AB	L207.19R	:P24\FLALSUM.MET	1000	1	1	0	122020028A	02099
20	LCSA 7/21/12S	20	LCS	AB	L207.20R	:P24\FLALSUM.MET	1000	1	1	0	122020028A	02099
21	LCSDA 7/21/12S	21	LCSD	AB	L207.21R	:P24\FLALSUM.MET	1000	1	1	0	122020028A	02099
22	6726153S	22	T	AB	L207.22R	:P24\FLALSUM.MET	974	1	1	0	122020028A	02099
23	6726155S	23	T	AB	L207.23R	:P24\FLALSUM.MET	1006	1	1	0	122020028A	02099
24	6726156S	24	T	AB	L207.24R	:P24\FLALSUM.MET	1003	1	1	0	122020028A	02099
25	6726157S	25	T	AB	L207.25R	:P24\FLALSUM.MET	988	1	1	0	122020028A	02099
26	6726152S	26	T	AB	L207.26R	:P24\FLALSUM.MET	957	1	1	0	122020028A	02099
27	6726154S	27	T	AB	L207.27R	:P24\FLALSUM.MET	1031	1	1	0	122020028A	02099
28	6726150S	28	T	AB	L207.28R	:P24\FLALSUM.MET	967	1	1	0	122020028A	02099
29	FLA_31232C	29	CCAL	AD	L207.29R	:P24\FLALSTD.MET	1	1	1	0	1220699999	
30	6726151S	30	T	AB	L207.30R	:P24\FLALSUM.MET	1014	1	1	0	122020028A	02099
31	FLA_41232C	31	CCAL	XZ	L207.31R	:P24\FLALSTD.MET	1	1	1	0	1220699999	

Clean 124 8-13-12

Set-up by: _____ Date: 7/26/12

7/26/2012

AKF94 0103

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24\L208.seq

Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Number of Entries: 41

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L208.01R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	
2	CONDITIONER	2	MISC	AA	L208.02R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	
3	CARTX1232D	3	CCAL	QG	L208.03R	P24\AKDLSUM.MET	1	1	1	0	1220799999	
4	AKRTX1232C	4	CCAL	WT	L208.04R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	
5	AKFL41232B	5	CCAL	UO	L208.05R	;P24\AKDLSTD.MET	1	1	1	0	1220799999	
6	6727319DF10	6	T	AB	L208.06R	P24\AKDLSUM.MET	1053	10	1	0	122060032A	01741
7	6727320DF10	7	T	AB	L208.07R	P24\AKDLSUM.MET	1050	10	1	0	122060032A	01741
8	BLANKA 7/25/12S	8	BLK	AB	L208.08R	P24\AKDLSUM.MET	1000	1	1	0	122070012A	02244
9	LCSA 7/25/12S	9	LCS	AB	L208.09R	P24\AKDLSUM.MET	1000	1	1	0	122070012A	02244
10	LCSDA 7/25/12S	10	LCSD	AB	L208.10R	P24\AKDLSUM.MET	1000	1	1	0	122070012A	02244
11	6723653RS	11	T	AB	L208.11R	P24\AKDLSUM.MET	1045	1	1	0	122070012A	02244
12	AKFL21232B	12	CCAL	WQ	L208.12R	;P24\AKDLSTD.MET	1	1	1	0	1220799999	
13	BLANKA 7/25/12	13	BLK	AA	L208.13R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
14	LCSA 7/25/12	14	LCS	AA	L208.14R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
15	LCSDA 7/25/12	15	LCSD	AA	L208.15R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
16	6729222	16	T	AA	L208.16R	P24\AKDLSUM.MET	25.5	1	1	0	122070017A	01742
17	6729225	17	T	AA	L208.17R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
18	6729206	18	T	AA	L208.18R	P24\AKDLSUM.MET	25.3	1	1	0	122070017A	01742
19	6729206MS	19	MS	AA	L208.19R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
20	6729206MSD	20	MSD	AA	L208.20R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
21	6729209	21	T	AA	L208.21R	P24\AKDLSUM.MET	25.4	1	1	0	122070017A	01742
22	6729212	22	T	AA	L208.22R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
23	MECL2	23	MISC	AA	L208.23R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	
24	AKFL31232B	24	CCAL	ZB	L208.24R	;P24\AKDLSTD.MET	1	1	1	0	1220799999	
25	6729213	25	T	AA	L208.25R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
26	6729219	26	T	AA	L208.26R	P24\AKDLSUM.MET	25.3	1	1	0	122070017A	01742
27	6729220	27	T	AA	L208.27R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
28	6729211	28	T	AA	L208.28R	P24\AKDLSUM.MET	25.3	1	1	0	122070017A	01742
29	6729224	29	T	AA	L208.29R	P24\AKDLSUM.MET	25.4	1	1	0	122070017A	01742
30	6729223	30	T	AA	L208.30R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
31	6729215DF5	31	T	AB	L208.31R	P24\AKDLSUM.MET	25.2	5	1	0	122070017A	01742
32	6729208DF10	32	T	AB	L208.32R	P24\AKDLSUM.MET	25.3	10	1	0	122070017A	01742
33	6729218DF10	33	T	AB	L208.33R	P24\AKDLSUM.MET	25.3	10	1	0	122070017A	01742
34	6729214DF10	34	T	AB	L208.34R	P24\AKDLSUM.MET	25	10	1	0	122070017A	01742
35	6729221DF10	35	T	AB	L208.35R	P24\AKDLSUM.MET	25.4	10	1	0	122070017A	01742
36	6729216	36	T	AA	L208.36R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
37	6729217	37	T	AA	L208.37R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
38	6729207	38	T	AA	L208.38R	P24\AKDLSUM.MET	25.4	1	1	0	122070017A	01742
39	6729210	39	T	AA	L208.39R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
40	AKFL41232B	40	CCAL	UN	L208.40R	;P24\AKDLSTD.MET	1	1	1	0	1220799999	
41	AKRTX1232C	41	CCAL	WU	L208.41R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	

Set-up by: JR Date: 7/27/12

7/26/2012

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24\L210.seq

Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Number of Entries: 25

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L210.01R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
2	CONDITIONER	2	MISC	AA	L210.02R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
3	AKRTX1232C	3	CCAL	XA	L210.03R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
4	AKFL41232B	4	CCAL	US	L210.04R	:P24\AKDLSTD.MET	1	1	1	0	1220999999	
5	BLANKA 7/27/12	5	BLK	AA	L210.05R	P24\AKDLSUM.MET	1000	1	1	0	122090011A	01741
6	LCSA 7/27/12	6	LCS	AA	L210.06R	P24\AKDLSUM.MET	1000	1	1	0	122090011A	01741
7	LCSDA 7/27/12	7	LCSD	AA	L210.07R	P24\AKDLSUM.MET	1000	1	1	0	122090011A	01741
8	6729226R	8	T	AA	L210.08R	P24\AKDLSUM.MET	1054	1	1	0	122090011A	01741
9	6723653R	9	T	AA	L210.09R	P24\AKDLSUM.MET	1050	1	1	0	122090011A	01741
10	6727319RDF10	10	T	AB	L210.10R	P24\AKDLSUM.MET	1042	10	1	0	122090011A	01741
11	AKFL21232B	11	CCAL	WW	L210.11R	:P24\AKDLSTD.MET	1	1	1	0	1220999999	
12	AKRTX1232C	12	CCAL	XB	L210.12R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
13	FLA_31232C	13	CCAL	AH	L210.13R	:P24\FLALSTD.MET	1	1	1	0	1220999999	
14	BLANKA 7/27/12S	14	BLK	AB	L210.14R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
15	LCSA 7/27/12S	15	LCS	AB	L210.15R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
16	6730559S	16	T	AB	L210.16R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
17	6730558S	17	T	AB	L210.17R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
18	6730558MSS	18	MS	AB	L210.18R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
19	6730558MSDS	19	MSD	AB	L210.19R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
20	6733713S	20	T	AB	L210.20R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
21	6733710S	21	T	AB	L210.21R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
22	6733711S	22	T	AB	L210.22R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
23	6733712S	23	T	AB	L210.23R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
24	MECL2	24	MISC	AA	L210.24R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
25	FLA_41232C	25	CCAL	YE	L210.25R	:P24\FLALSTD.MET	1	1	1	0	1220999999	

Set-up by: JH Date: 7/30/12

7/28/2012

AKF94 0105

Sample: AKFL41232B UKAKFL4UK CCAL 1220699999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/25/2012 10:34:27
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
17	2.71	C10	0.00	455954.1
47	6.18	Capric Acid	27.45	387819.5
78	9.92	o-Terphenyl SURR	50.10	1329507
91	12.27	C25	0.00	5066.691

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	77.557	36412490.0
2	9.87	9.97	50.103	1329507.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1507.993

% Level 2 DRO Difference = 276.9982

% Level 3 DRO Difference = 88.49908

% Level 4 DRO Difference = -5.75046

Not Used
See Reintegration

FILES:

Area File: L207.0003.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/25/2012 10:54:28 PM
File reported on: 7/25/2012 at 10:54:30 PM

Sample: AKFL41232B UKAKFL4UK CCAL 1220699999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/25/2012 10:34:27 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
17	2.71	C10	0.00	463606.9
47	6.18	Capric Acid	28.01	395671.1
78	9.92	o-Terphenyl SURR	50.73	1346042
91	12.27	C25	0.00	30409.61

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	78.736	37515600.0 M
2	9.87	9.97	50.726	1346042.0

********** RESULTS TABLE **********

C10 - <C25 DRO AMT = 1554.698

% Level 2 DRO Difference = 288.6744

% Level 3 DRO Difference = 94.33719

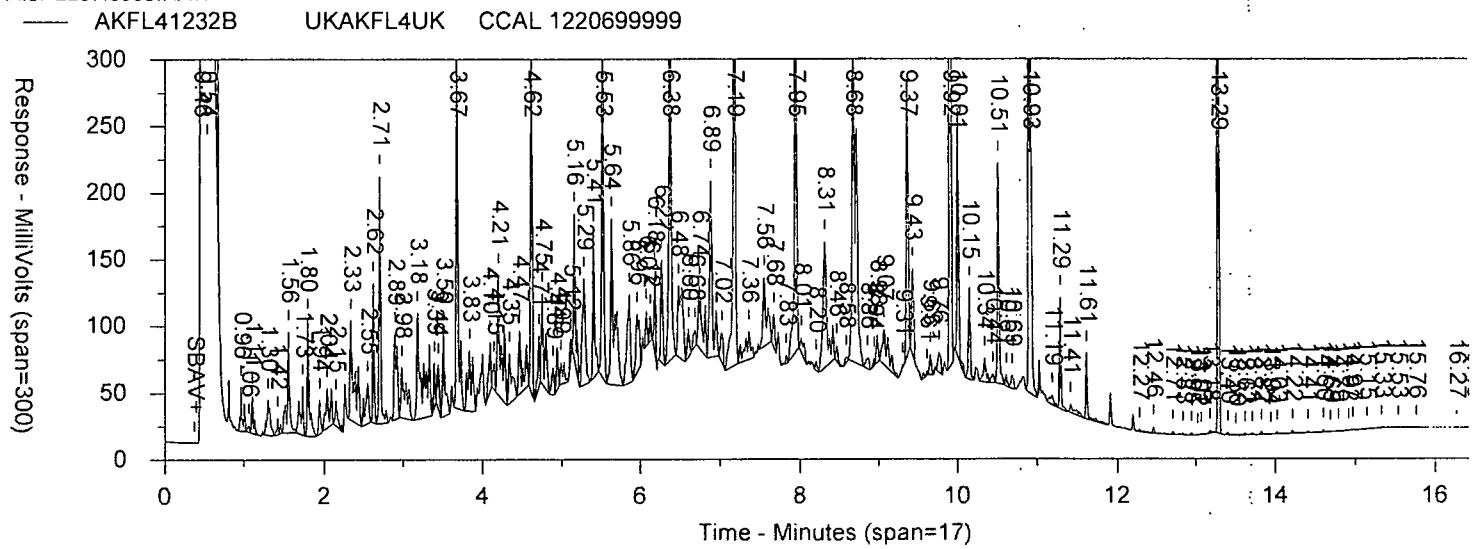
% Level 4 DRO Difference = -2.831405 M

M = Manually Integrated
Analyst [illegible] 7/26/12
Approved by [illegible] 7-30-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other _____

FILES:

Area File: L207.0003.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/26/2012 6:24:57 PM
File reported on: 7/26/2012 at 6:24:58 PM

Sample: AKFL41232B UKAKFL4UK CCAL 1220699999 AK 102/103 SURROGATE
File: L207.0003.RAW



Sample: AKFL41232B UKAKFL4UK CCAL 1220699999 AK 102/103 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/25/2012 10:34:27 PM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
17	2.71	C10	0.00	290794.3
47	6.18	Capric Acid	6.11	86257.59
78	9.92	o-Terphenyl SURR	37.19	986903.2
91	12.27	C25	0.00	5066.691

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	37.192	986903.2

o-Terphenyl Level 2 % Difference = 271.9199 %

o-Terphenyl Level 3 % Difference = 132.4499 %

o-Terphenyl Level 4 % Difference = -7.020032 %

JH 7/26/12

FILES:
Area File: L207.0003.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/25/2012 10:54:28 PM
File reported on: 7/25/2012 at 10:54:36 PM

Sample: AKFL21232B WLAKFL2WL CCAL 1220699999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/26/2012 4:46:04 A
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
15	2.71	C10	0.00	113404.9
40	6.18	Capric Acid	6.23	88059.37
68	9.91	o-Terphenyl SURR	11.56	306708.3
83	12.27	C25	0.00	1648.434

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	17.792	7798510.0
2	9.87	9.97	11.558	306708.3

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 322.0246

% Level 2 DRO Difference = -19.49386

% Level 3 DRO Difference = -59.74693

% Level 4 DRO Difference = -79.87347

Not Used
See Reintegration

FILES:

Area File: L207.0016.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/26/2012 5:06:05 AM
File reported on: 7/26/2012 at 5:06:09 AM

Sample: AKFL21232B WLAKFL2WL CCAL 1220699999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/26/2012 4:46:04 AM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
15	2.71	C10	0.00	129600.1
40	6.18	Capric Acid	7.41	104675.3
68	9.91	o-Terphenyl SURR	12.67	336154.6
83	12.27	C25	0.00	3086.414

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	20.078	9883635.0 M
2	9.87	9.97	12.668	336154.6

********** RESULTS TABLE **********

C10 - <C25 DRO AMT = 410.385

% Level 2 DRO Difference = 2.596247

% Level 3 DRO Difference = -48.70188

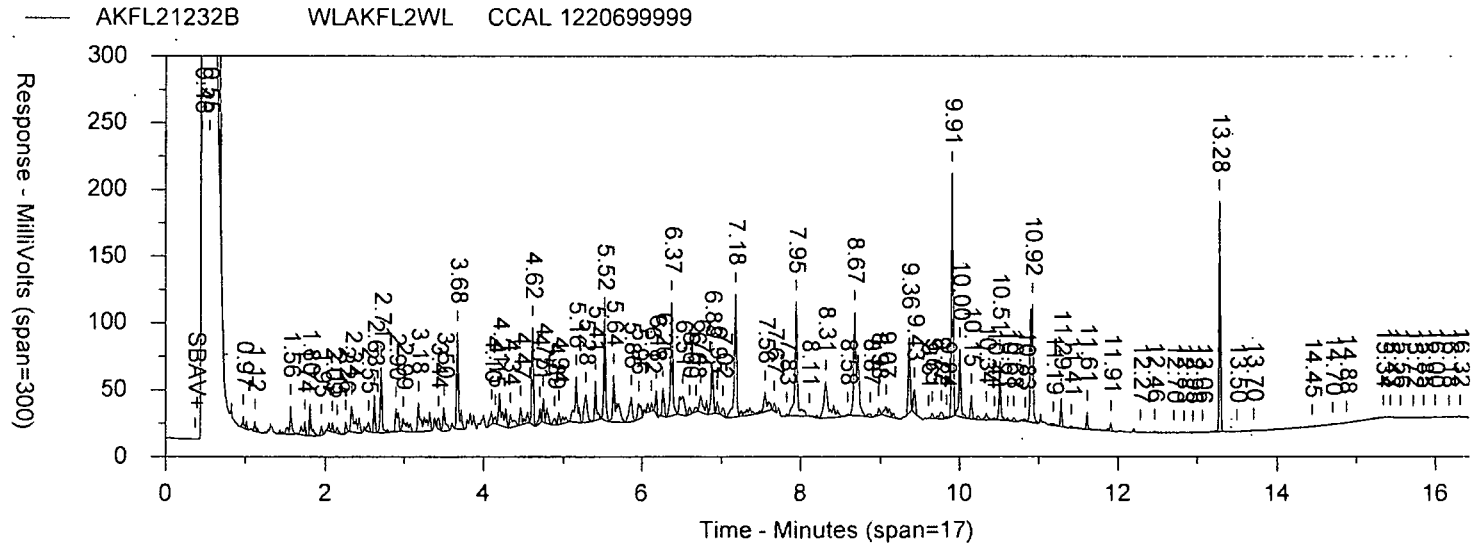
% Level 4 DRO Difference = -74.35094

M = Manually Integrated
Analyst JH 7/26/12
Approved by DaC 7/28/12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L207.0016.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/26/2012 6:29:26 PM
File reported on: 7/26/2012 at 6:29:28 PM

Sample: AKFL21232B WLAKFL2WL CCAL 1220699999 AK 102/103 SURROGATE
File: L207.0016.RAW



Sample: AKFL21232B WLAKFL2WL CCAL 1220699999 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/26/2012 4:46:04 AM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
15	2.71	C10	0.00	78184.9
40	6.18	Capric Acid	1.73	24378.06
68	9.91	o-Terphenyl SURR	10.04	266352.6
83	12.27	C25	0.00	1648.434

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	10.038	266352.6

o-Terphenyl Level 2 % Difference = 0.3764391 %

o-Terphenyl Level 3 % Difference = -37.26473 %

o-Terphenyl Level 4 % Difference = -74.90589 %

JL 7/26/12

FILES:
Area File: L207.0016.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/26/2012 5:06:05 AM
File reported on: 7/26/2012 at 5:06:15 AM

Sample: CARTX1232D QGCARTXQG CCAL 1220799999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1
Analyst: 2268

Injected on: 7/26/2012 9:57:48 PM
GC Column: ZB5 30m X 0.32mm X 0.25un

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
8	6.21	Capric Acid	36222.16	511675.1

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	36.222	526438.6
2	9.87	9.97	0.000	0.0

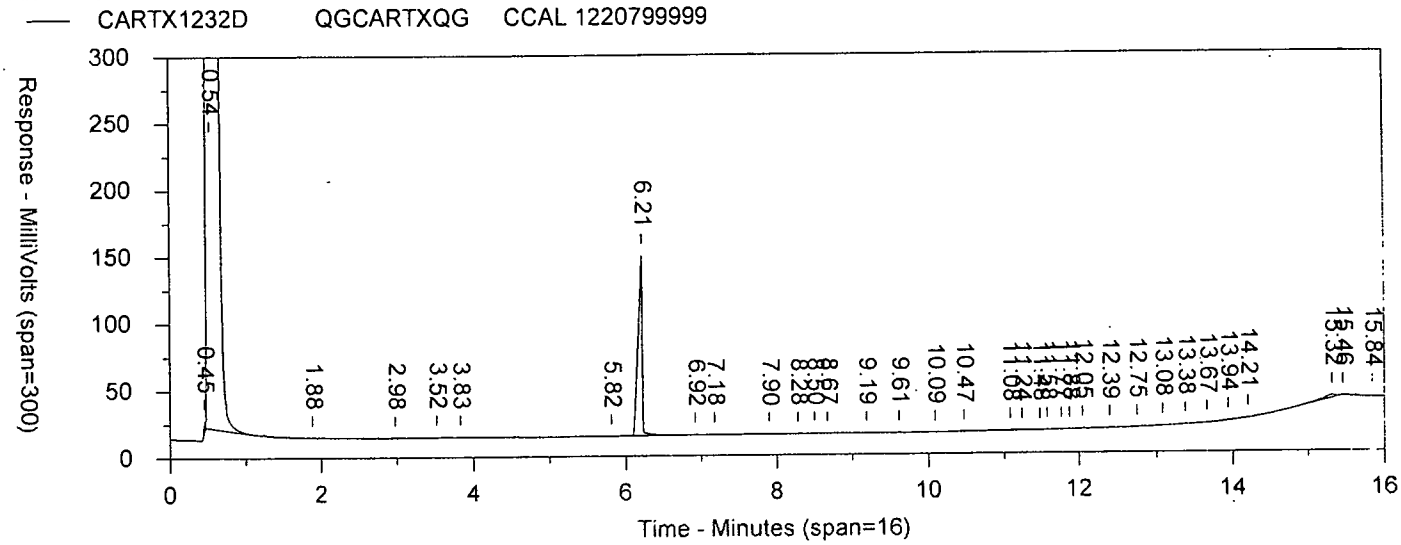
********** RESULTS TABLE **********

C10-<C25 DRO AREA = 526438.6
C10-<C25 AMT = 22.62823

FILES:

Area File: L208.0003.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/26/2012 10:17:49 PM
File reported on: 7/26/2012 at 10:17:55 PM

Replot: CARTX1232D QGCARTXQG CCAL 1220799999 AK 102/103
File: L208.0003.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1
Analyst: 2268

Injected on: 7/26/2012 9:57:48 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
8	6.21	Capric Acid	36.22	511675.1

O-TERPHENYL % RECOVERY = 0 %

Capric Acid % recovery = 7.332422 %

FILES:

Area File: L208.0003.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/26/2012 10:17:49 PM
File reported on: 7/26/2012 at 10:18:01 PM

Sample: AKFL41232B UOAKFL4UO CCAL 1220799999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/26/2012 10:54:48
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	2.70	C10	0.00	381406.6
45	6.18	Capric Acid	23.61	333512.6
72	9.91	o-Terphenyl SURR	43.11	1143987
86	12.19	C25	0.00	12985.41

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	66.722	29554980.0
2	9.87	9.97	43.112	1143987.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1221.207

% Level 2 DRO Difference = 205.3016

% Level 3 DRO Difference = 52.65082

% Level 4 DRO Difference = -23.67459

Not Used
See Reintegration

FILES:

Area File: L208.0005.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/26/2012 11:14:48 PM
File reported on: 7/26/2012 at 11:14:51 PM

Sample: AKFL41232B UOAKFL4UO CCAL 1220799999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/26/2012 10:54:48 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	2.70	C10	0.00	402390.6
45	6.18	Capric Acid	25.20	355909.5
72	9.91	o-Terphenyl SURR	44.87	1190750
86	12.19	C25	0.00	25833.4

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	70.069	32487840.0 M
2	9.87	9.97	44.874	1190750.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1345.261

% Level 2 DRO Difference = 236.3154

% Level 3 DRO Difference = 68.15768

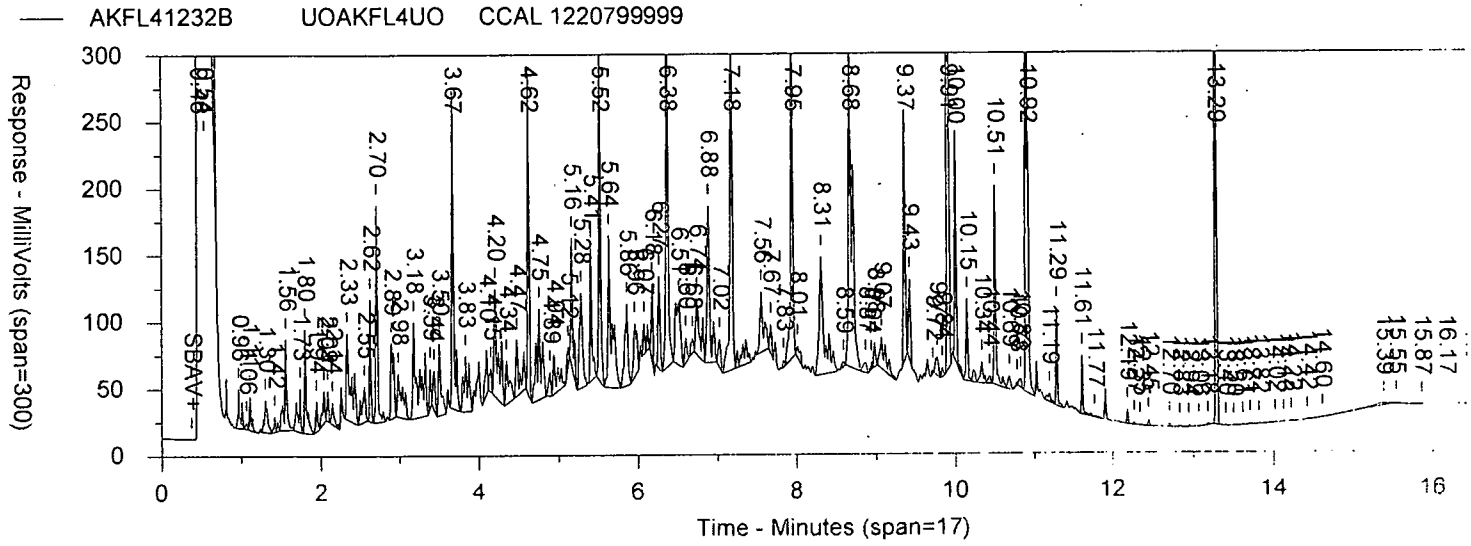
% Level 4 DRO Difference = -15.92116

M = Manually Integrated
Analyst JH 7/27/12
Approved by [illegible] 7-30-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other _____

FILES:

Area File: L208.0005.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/27/2012 5:10:30 PM
File reported on: 7/27/2012 at 5:10:32 PM

Sample: AKFL41232B UOAKFL4UO CCAL 1220799999 AK 102/103 SURROGATE
File: L208.0005.RAW



Sample: AKFL41232B UOAKFL4UO CCAL 1220799999 SURROGATE Replot

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

Injected on: 7/26/2012 10:54:48 PM
GC Column:

Dilution Factor: 1

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
18	2.70	C10	0.00	254339.6
45	6.18	Capric Acid	5.69	80437.42
72	9.91	o-Terphenyl SURR	32.85	871737.6
86	12.19	C25	0.00	12985.41

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	32.852	871737.6

o-Terphenyl Level 2 % Difference = 228.5191 %

o-Terphenyl Level 3 % Difference = 105.3244 %

o-Terphenyl Level 4 % Difference = -17.87022 %

7/27/12

FILES:
Area File: L208.0005.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/26/2012 11:14:48 PM
File reported on: 7/26/2012 at 11:14:57 PM

Sample: AKFL21232B WQAKFL2WQ CCAL 1220799999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/27/2012 2:14:17 AM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	2.70	C10	0.00	109073.4
46	6.18	Capric Acid	6.91	97561.52
76	9.91	o-Terphenyl SURR	10.05	266579.5
93	12.19	C25	0.00	3609.178

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	16.953	7990828.0
2	9.87	9.97	10.046	266579.5

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 332.016

% Level 2 DRO Difference = -16.99601

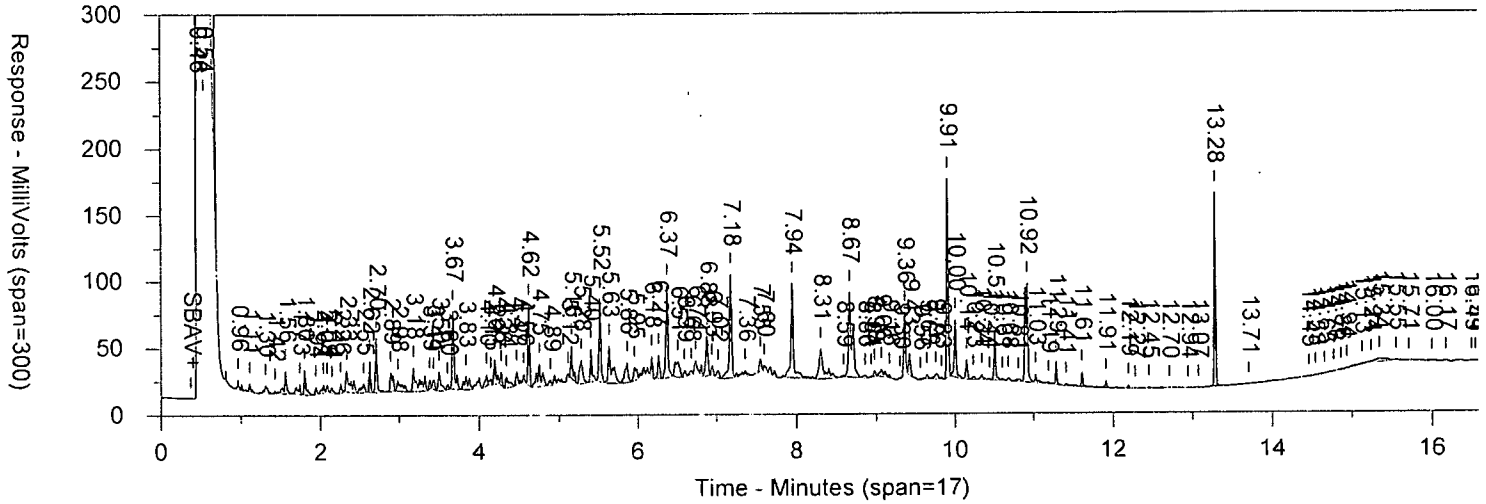
% Level 3 DRO Difference = -58.498

% Level 4 DRO Difference = -79.249

FILES:

Area File: L208.0012.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/27/2012 6:43:26 AM
File reported on: 7/27/2012 at 5:03:28 PM

Sample: AKFL21232B WQAKFL2WQ CCAL 1220799999 AK 102/103 SURROGATE
File: L208.0012.RAW
—— AKFL21232B WQAKFL2WQ CCAL 1220799999



Sample: AKFL21232B WQAKFL2WQ CCAL 1220799999 AK 102/103 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/27/2012 2:14:17 AM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
18	2.70	C10	0.00	64134.89
46	6.18	Capric Acid	1.53	21554.7
76	9.91	o-Terphenyl SURR	8.26	219087.5
93	12.19	C25	0.00	3294.274

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	8.256	219087.5

o-Terphenyl Level 2 % Difference = -17.43569 %

o-Terphenyl Level 3 % Difference = -48.39731 %

o-Terphenyl Level 4 % Difference = -79.35892 %

JH 7/27/12

FILES:
Area File: L208.0012.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/27/2012 6:43:26 AM
File reported on: 7/27/2012 at 5:04:42 PM

Sample: AKFL41232B USAKFL4US CCAL 1220999999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 5:38:12 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	438897.6
43	6.17	Capric Acid	26.56	375201.7
71	9.91	o-Terphenyl SURR	49.65	1317522
89	12.18	C25	0.00	16518.74

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	76.213	34352980.0
2	9.87	9.97	49.652	1317522.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1419.983

% Level 2 DRO Difference = 254.9956

% Level 3 DRO Difference = 77.49782

% Level 4 DRO Difference = -11.25109

Not Used
See Reintegration

FILES:

Area File: L210.0004.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/28/2012 5:58:12 PM
File reported on: 7/30/2012 at 6:34:49 PM

Sample: AKFL41232B USAKFL4US CCAL 1220999999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 5:38:12 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	463609.3
43	6.17	Capric Acid	28.36	400620
71	9.91	o-Terphenyl SURR	51.67	1371105
89	12.18	C25	0.00	28206.99

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	80.031	37781320.0 M
2	9.87	9.97	51.671	1371105.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1565.042

% Level 2 DRO Difference = 291.2605

% Level 3 DRO Difference = 95.63023

% Level 4 DRO Difference = -2.184886

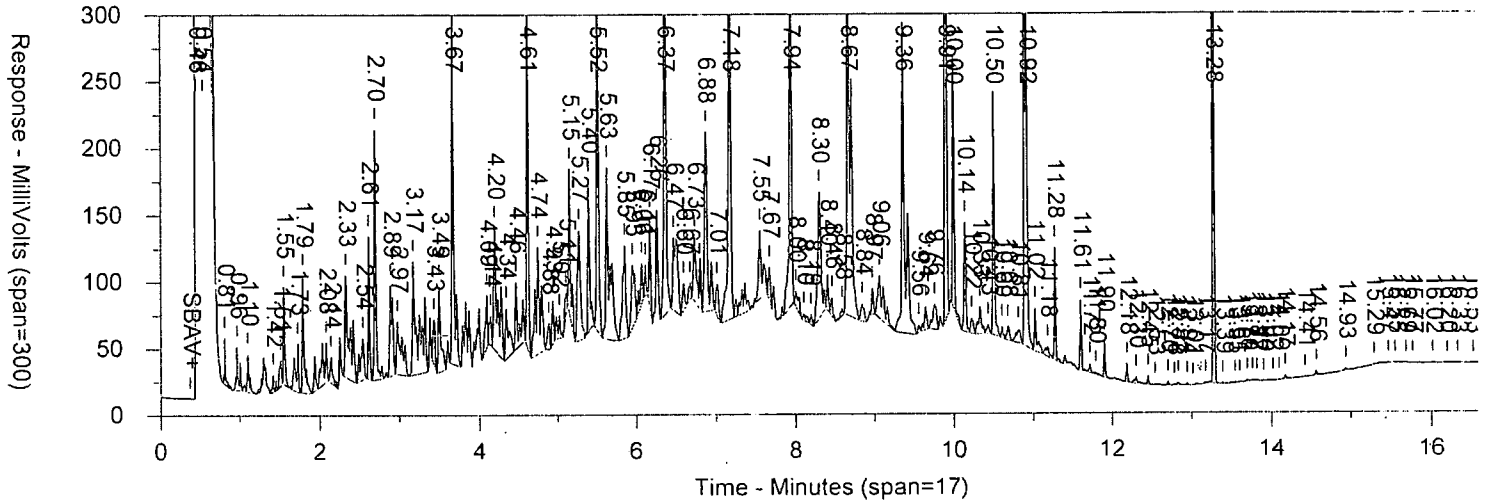
M = Manually Integrated
Analyst 7/30/12
Approved by 8-8-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other _____

FILES:

Area File: L210.0004.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/30/2012 6:59:34 PM
File reported on: 7/30/2012 at 6:59:35 PM

Chrom Perfect Chromatogram Report

Sample: AKFL41232B USAKFL4US CCAL 1220999999 AK 102/103 SURROGATE
File: L210.0004.RAW
—— AKFL41232B USAKFL4US CCAL 1220999999



Sample: AKFL41232B USAKFL4US CCAL 1220999999 AK 102/103 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/28/2012 5:38:12 PM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
16	2.70	C10	0.00	295926.1
43	6.17	Capric Acid	6.40	90383.55
71	9.91	o-Terphenyl SURR	38.20	1013552
89	12.18	C25	0.00	16518.74

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	38.196	1013552.0

o-Terphenyl Level 2 % Difference = 281.9627 %

o-Terphenyl Level 3 % Difference = 138.7267 %

o-Terphenyl Level 4 % Difference = -4.509318 %

7/30/12

FILES:
Area File: L210.0004.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/28/2012 5:58:12 PM
File reported on: 7/30/2012 at 6:35:34 PM

Sample: AKFL21232B WWAKFL2WW CCAL 1220999999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 8:58:12 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	93270.57
42	6.17	Capric Acid	6.12	86507.12
67	9.90	o-Terphenyl SURR	10.87	288355.8
83	12.18	C25	0.00	4821.88

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	16.991	6616382.0
2	9.87	9.97	10.867	288355.8

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 272.0013

% Level 2 DRO Difference = -31.99967

% Level 3 DRO Difference = -65.99983

% Level 4 DRO Difference = -82.99992

Not Used
See Reintegration

FILES:

Area File: L210.0011.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/28/2012 9:18:13 PM
File reported on: 7/30/2012 at 6:35:02 PM

Sample: AKFL21232B WWAKFL2WW CCAL 1220999999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 8:58:12 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	110847.1
42	6.17	Capric Acid	8.12	114698.5
67	9.90	o-Terphenyl SURR	12.49	331518.8
83	12.18	C25	0.00	7045.297

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	20.613	9516119.0
2	9.87	9.97	12.493	331518.8

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 394.7871

% Level 2 DRO Difference = -1.303214

% Level 3 DRO Difference = -50.65161

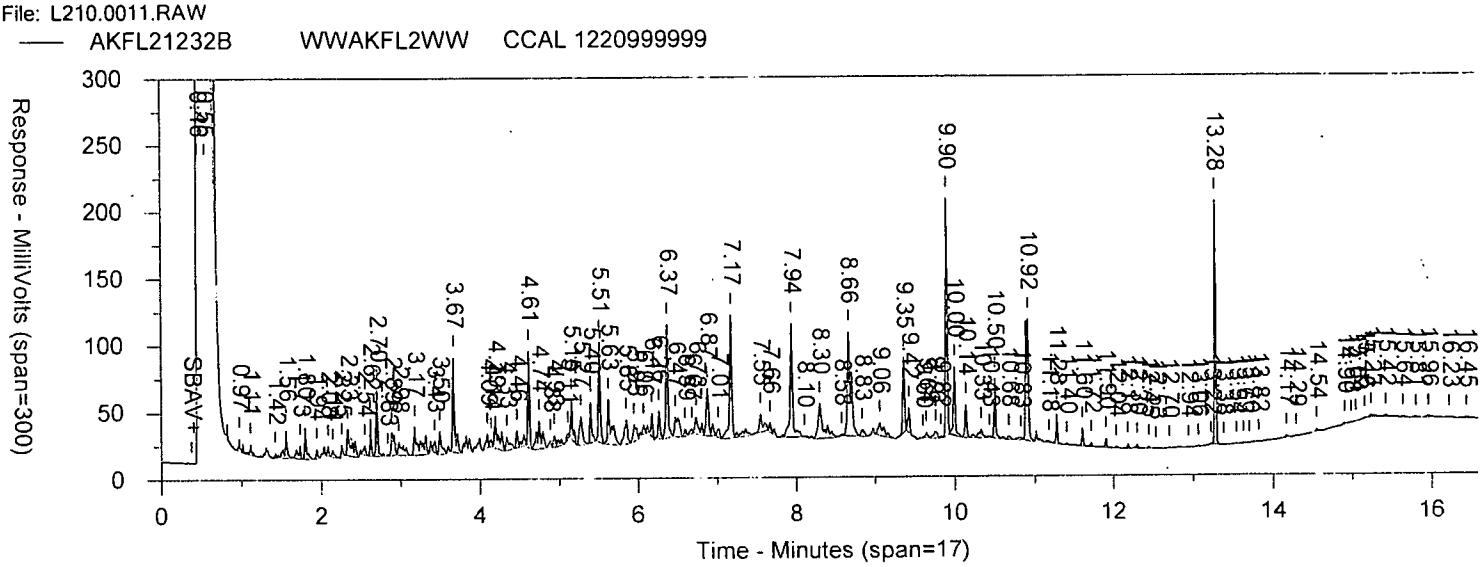
% Level 4 DRO Difference = -75.32581

M = Manually Integrated
Analyst th 7/30/12
Approved by BoOl 7/30 8-8-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other _____

FILES:

Area File: L210.0011.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/30/2012 6:58:46 PM
File reported on: 7/30/2012 at 6:58:47 PM

Sample: AKFL21232B WWAKFL2WW CCAL 1220999999 AK 102/103 SURROGATE
File: L210.0011.RAW



Sample: AKFL21232B WWAKFL2WW CCALAK22099999SURROGATE Replot

Instrument ID:CP24 Injected on: 7/28/2012 8:58:12 PM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
16	2.70	C10	0.00	77918.23
42	6.17	Capric Acid	1.99	28118.76
67	9.90	o-Terphenyl SURR	10.02	265914.6
83	12.18	C25	0.00	4821.88

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	10.021	265914.6

o-Terphenyl Level 2 % Difference = 0.21137 %

o-Terphenyl Level 3 % Difference = -37.36789 %

o-Terphenyl Level 4 % Difference = -74.94715 %

7/30/12

FILES:
Area File: L210.0011.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/28/2012 9:18:13 PM
File reported on: 7/30/2012 at 6:36:04 PM

Raw QC Data

Lancaster Laboratories-Range Data Summary

Sample Name: BLANKA 7/25/12 PBLK32206 Sample ID: AA **Batchnumber:** 122060032A
Sample Amount: 1000. Total Volume: 1. ml Analyst: 2268 SDG: State:
Analyses: 01741 02244

Injection Summary

Injected on : 7/26/2012 01:25:50
Instrument : CP24--H5386A
Result file : L207.0009.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 86% (50-150) Conc.: 10.286

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	340951	0.0029	<0.25	<0.05		ppm
☐ o-Terphenyl SURR	9.91 (9.87 - 9.97)	272946	10.2860				ppb

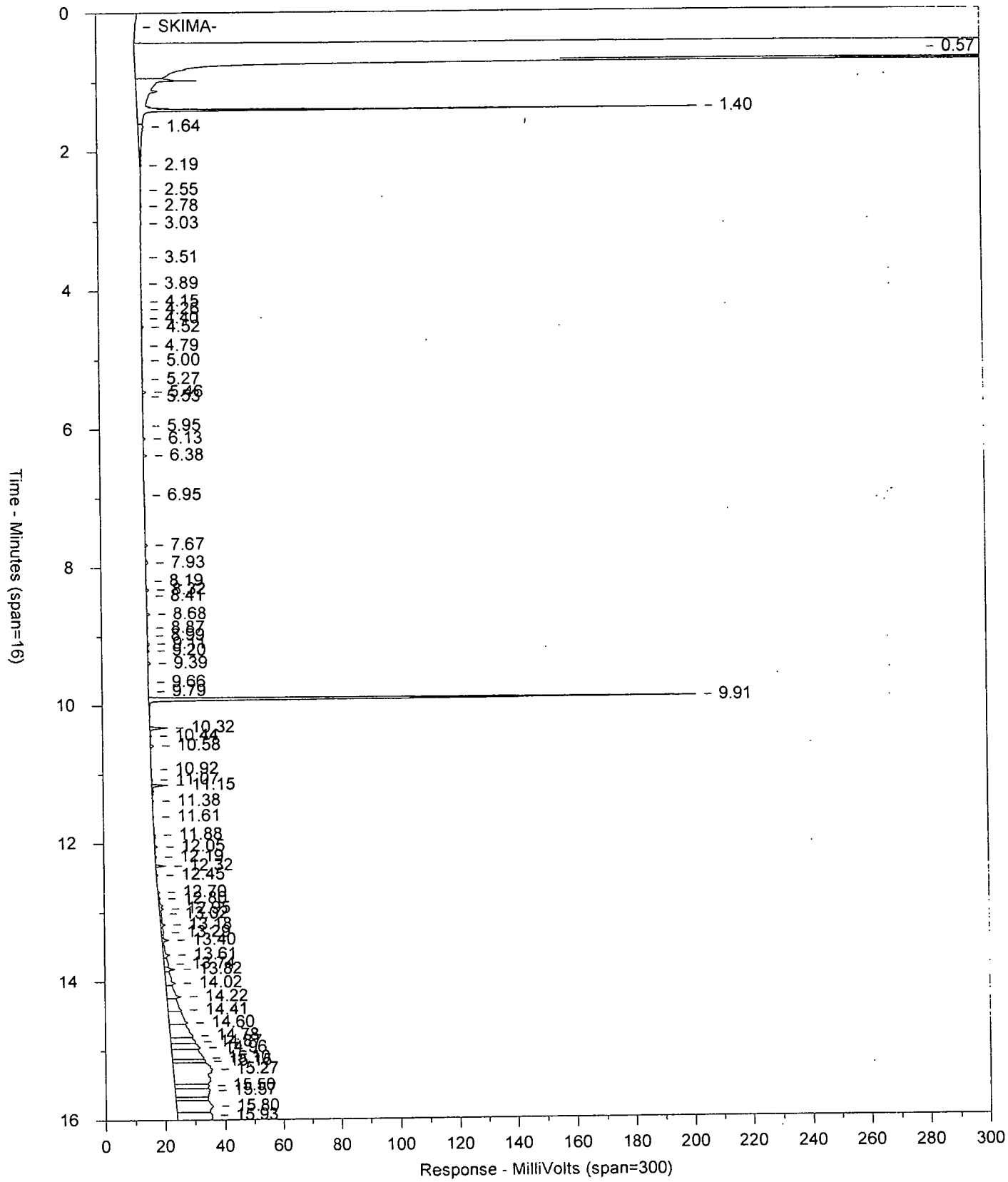
Comments:

Reviewed by: JLh
Date: 7/27/12

Verified by: Tracy A. Cole
Date: JUL 30 2012

Tracy A. Cole
Senior Specialist

Sample: BLANKA 7/25/12 AAPBLK32206 BLK 122060032A 01741 AK102/AK 103 04/08/02
File: L207.0009.RAW



Chrom Perfect Chromatogram Report

Sample: BLANKA 7/25/12 AAPBLK32206 BLK 122060032A 01741 AKI 022/03K 103 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/26/2012 1:25:50 AM
GC Column: ZB5 30m X 0.32mm X 0.25un

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
20	6.13	Capric Acid	0.11	1589.582
36	9.91	o-Terphenyl SURR	10.29	272945.8
47	12.19	C25	0.00	935.4157

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	10.399	340950.5
2	9.87	9.97	10.286	272945.8

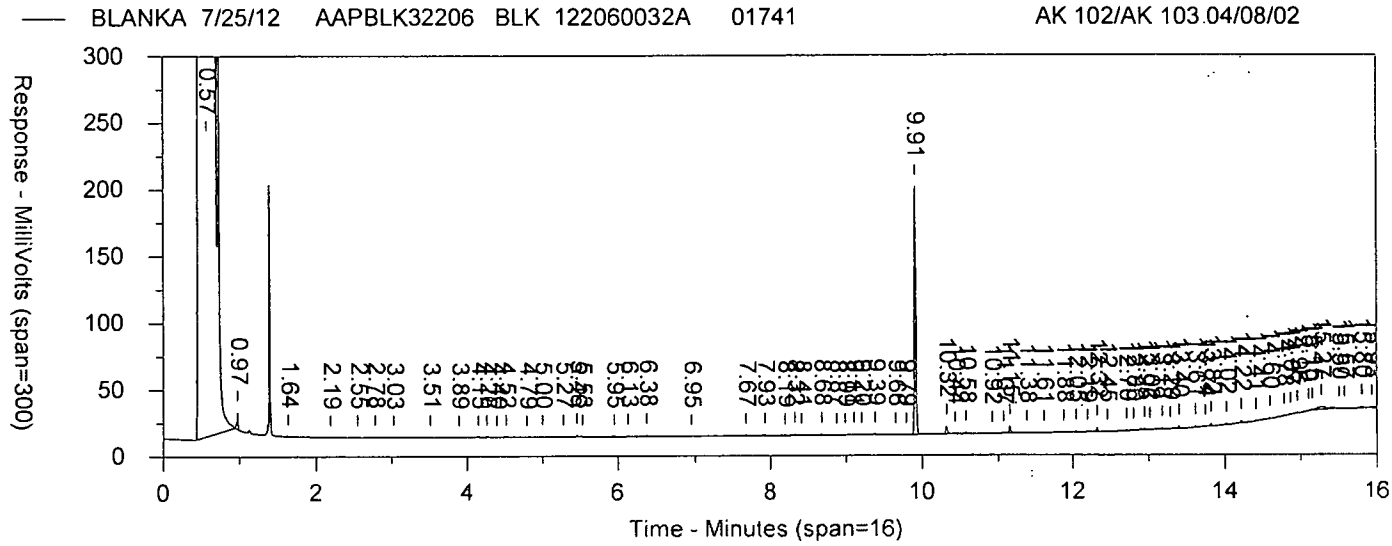
********** RESULTS TABLE **********

C10-<C25 DRO AREA = 340950.5
C10-<C25 AMT = 0.002923086

FILES:

Area File: L207.0009.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/26/2012 1:45:52 AM
File reported on: 7/26/2012 at 1:45:56 AM

Replot: BLANKA 7/25/12 AAPBLK32206 BLK 122060032A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L207.0009.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/26/2012 1:25:50 AM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
20	6.13	Capric Acid	0.00	1589.582
36	9.91	o-Terphenyl SURR	0.01	272945.8
47	12.19	C25	0.00	935.4157

O-TERPHENYL % RECOVERY = 85.71761 %

Capric Acid % recovery = 0.02277908 %

FILES:

Area File: L207.0009.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/26/2012 1:45:52 AM
File reported on: 7/26/2012 at 1:46:02 AM

Lancaster Laboratories Range Data Summary

Sample Name: BLANKA 7/27/12 PBLK11209 Sample ID: AA **Batchnumber:** 122090011A
Sample Amount: 1000. Total Volume: 1. ml Analyst: 2268 SDG: State:
Analyses: 01741 02244

Injection Summary

Injected on : 7/28/2012 18:06:47
Instrument : CP24--H5386A
Result file : L210.0005.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 91% (50-150) Conc.: 10.977

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	538505	0.0106	<0.25	<0.05		ppm
☐ o-Terphenyl SURR	9.90 (9.87 - 9.97)	291269	10.9770				ppb

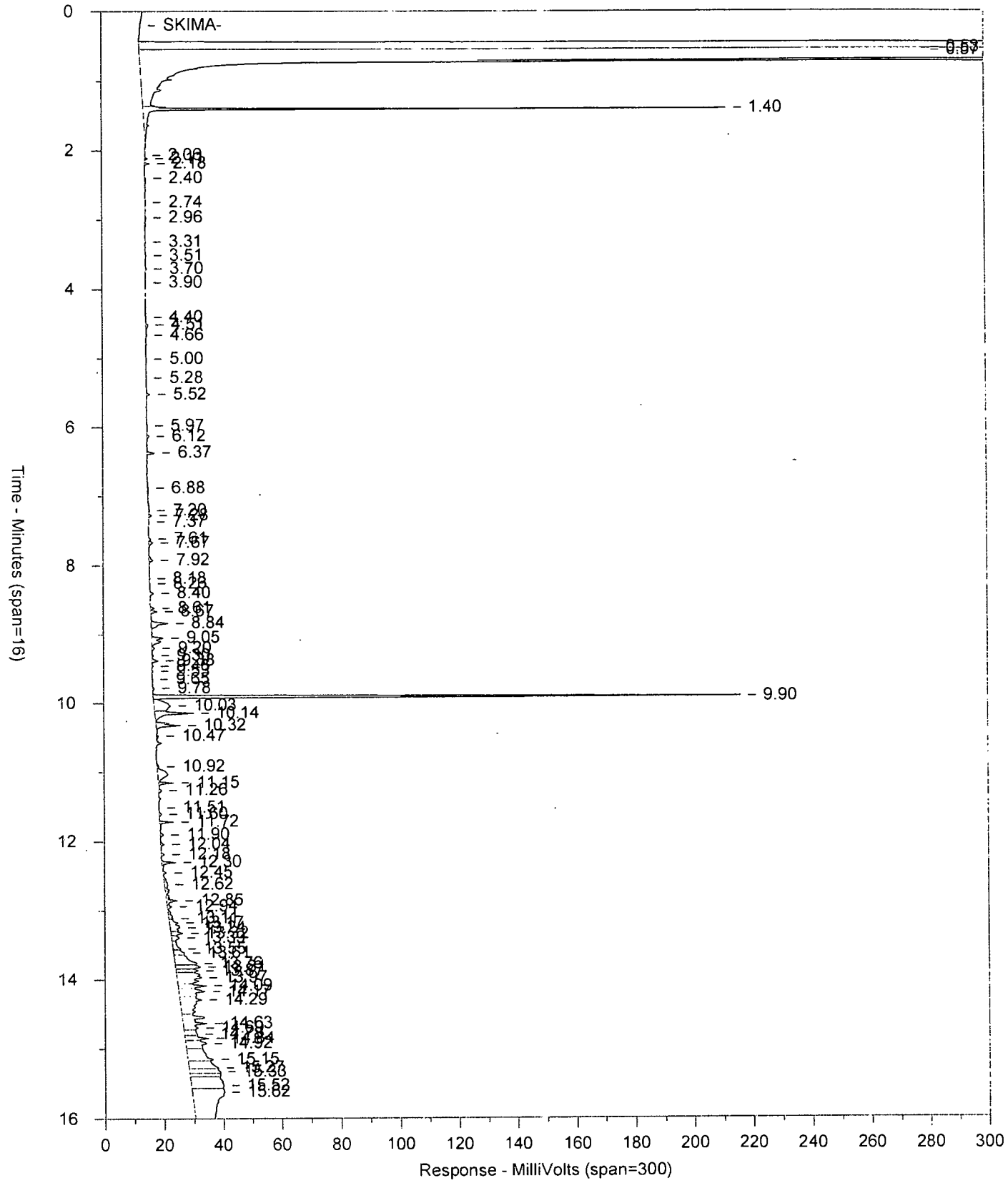
Comments:

Tracy A. Cole

Reviewed by: Rh
Date: 8/2/12

Verified by: AUG 09 2012
Date:
Tracy A. Cole
Senior Specialist

Sample: BLANKA 7/27/12 AAPBLK11209 BLK 122090011A 01741 AK102/AK 103 04/08/02
File: L210.0005.RAW



Chrom Perfect Chromatogram Report

Sample: BLANKA 7/27/12 AAPBLK11209 BLK 122090011A 01741 AKK 122/03K 103 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/28/2012 6:06:47 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
8	2.74	C10	0.00	1462.503
21	6.12	Capric Acid	0.14	1964.586
44	9.90	o-Terphenyl SURR	11.11	294711.6
57	12.18	C25	0.00	2061.458

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	11.245	538504.7
2	9.87	9.97	11.106	294711.6

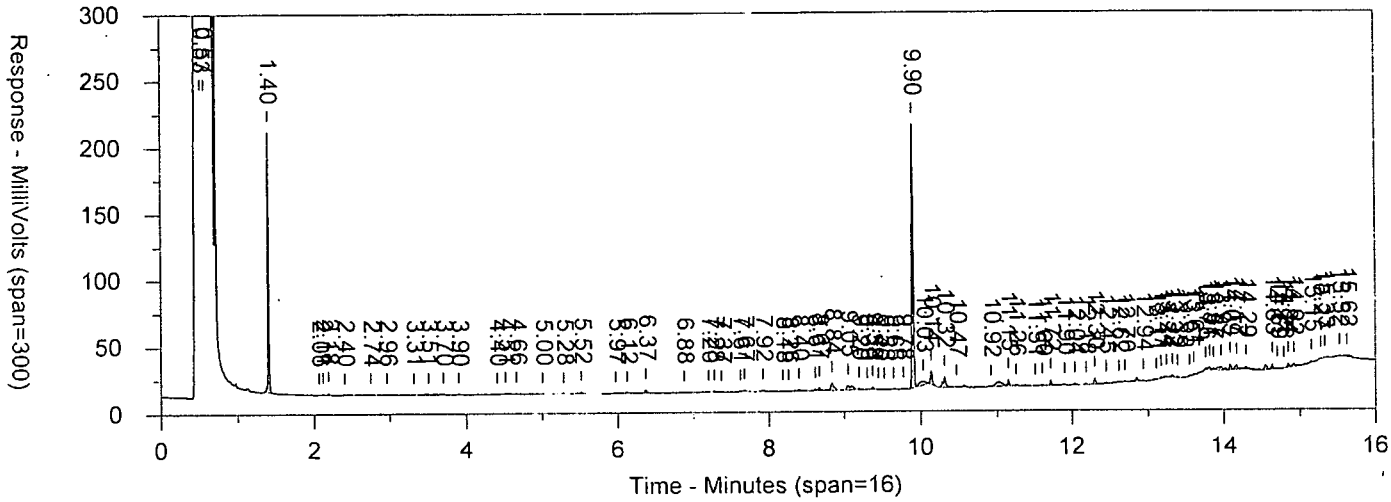
********** RESULTS TABLE **********

C10-<C25 DRO AREA = 538504.7
C10-<C25 AMT = 0.0104791

FILES:

Area File: L210.0005.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/28/2012 6:26:48 PM
File reported on: 7/30/2012 at 6:34:50 PM

Replot: BLANKA 7/27/12 AAPBLK11209 BLK 122090011A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L210.0005.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/28/2012 6:06:47 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
8	2.74	C10	0.00	1462.503
21	6.12	Capric Acid	0.00	1964.586
44	9.90	o-Terphenyl SURR	0.01	291268.8
57	12.18	C25	0.00	2061.458

O-TERPHENYL % RECOVERY = 91.47186 %

Capric Acid % recovery = 0.02815297 %

FILES:

Area File: L210.0005.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/28/2012 6:26:48 PM
File reported on: 7/30/2012 at 6:35:40 PM

Extraction/Distillation/Digestion Logs

Organic Extraction Batchlog Assigned to: 2257 Cynthia Salvatori Reviewed by: JH Start Date: 7/25/12 Start time: 9:25

122060032A

Tech 1: CS2257 Tech 2:

Dept: 32 Prep Analysis: 11184 AK DRO Waters Extraction TPH-DRO AK water C10-C25

QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
BLANKA *	PBLK32206	1000	SS1218032A	1			1	—		—	DI H_2O
LCSA *	LCS32206	1000	SS1218032A	1	~~MS1218032A~~	1	1			—	↓
LCSDA *	LCSD32206	1000	SS1218032A	1	~~MS1218032A~~	1	1			—	↓

Solvent Used	Lot No.
1:1 HCl	B103-21
Methylene Chloride	42E02
Sodium Sulfate	12205A

Spike Solutions: Witness: —

~~MS1219132A~~ ~~MS1218032A~~ DRO WATER SPIKE

SS1218032A DRO WATER SURROGATE

*Split w/batch 122060033A

1:1 HCl added to QC

Sample #		Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6727319 *	CDJM4	1053	SS1218032A	1	1	—		29A	tan tint w/sed	01741	07/30/2012	P
2	6727320 *	CDJ4D	1050	SS1218032A	1	1			29A	↓	01741	07/30/2012	P
3	6729226	KSEQB	1052	SS1218032A	1	1	—		29A	clear	01741	07/31/2012	P

CS2257
7/25/12

Rack ID:		Work Station	H2O 3
Internal Standard		Balance #	15661

S-bath ID 1	88 C	S-bath ID — C	N-Evap — C	M-vap — C	122060032A

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume

Organic Extraction Batchlog Assigned to: 1364 JoElla Rice

Reviewed by: JM Start Date: 7-27-12 Start time: 16:30

122090011A

Tech 1: MLY Tech 2:

Dept: 32 Prep Analysis: 11184 AK DRO Waters Extraction TPH-DRO AK water C10-C25

QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
BLANKA	PBLK11209	1000	~~SS1218032A~~ ø	1.0	—	—	1	—	—	—	DI H_2O
LCSA	LCS11209	1000	~~SS1218032A~~ ø	1.0	MS1219132A	1.0	1	—	—	—	↓
LCSDA	LCSD11209	1000	~~SS1218032A~~ ø	1.0	MS1219132A	1.0	1	—	—	—	↓

Solvent Used	Lot No.
1:1 HCl	B103-21
Methylene Chloride	L09E05
Sodium Sulfate	12208A

ø SS1220932A

Spike Solutions: Witness: N/A

MS1219132A DRO WATER SPIKE

~~ø SS1218032A~~ DRO WATER SURROGATE

5mL 1:1 HCl added to QC MLY 7-27-12

Sample #		Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6723653 X	GSA15	1050	~~SS1218032A~~ ø	1.0	1	—	—	29C	brown	01741	07/26/2012	P
2	6727319 R	CDJM4	1042	~~SS1218032A~~ ø	1.0	1	—	—	29B	cloudy	01741	07/30/2012	P
~~3~~	~~6727320 R~~	~~CDJ4D~~		~~SS1218032A~~						3F 7/27/12 no sample	01741	07/30/2012	P
4	6729226 R	KSEQB	1054	~~SS1218032A~~ ø	1.0	1	—	—	29B	clear	01741	07/31/2012	P

MLY 7-27-12

X Centrifuged 3X

Rack ID:		Work Station	Bench 5
Internal Standard		Balance #	15661

DF = Dilution Factor FV = Final Volume

Page 1 of 1

16981

S-bath ID	88	C	S-bath ID	C	N-Evap	C	M-vap	C	122090011A

Documented temps are NIST corrected.

TPH-DRO by GC with Silica Gel Data

Case Narrative/Conformance Summary

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Case Narrative/Conformance Summary

CLIENT: ChevronTexaco
SDG: AKF94

EPH/Miscellaneous GC

Fraction: TPH-DRO by GC with Silica Gel

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
6727319	MW-4-W-07182012	X		10	
6727320	MW-4-WD-07182012	X		10	Field Duplicate Sample

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

LCS/LCSD

(Sample number(s): 6727320: Analysis: 02244)
The recovery for a target analyte(s) in the Laboratory Control Spike(s) is outside the QC acceptance limits as noted on the QC Summary. Sufficient sample was not available to repeat the analysis.
Due to the dilution of the sample extract, capric acid recovery can not be determined.

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

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Case Narrative/Conformance Summary

CLIENT: ChevronTexaco
SDG: AKF94

EPH/Miscellaneous GC

Fraction: TPH-DRO by GC with Silica Gel

SAMPLE ANALYSIS:

(Sample number(s): 6727319: Analysis: 02244)
Due to the dilution of the sample extract, capric acid recovery can not be determined.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Narrative Reviewed and Approved 8-13-2012 by Audrey K. McClune
(Date)
Audrey K. McClune
Specialist

Quality Control and Calibration Summary Forms

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Quality Control Reference List
EPH/Miscellaneous GC

CLIENT: ChevronTexaco
SDG: AKF94

Fraction: TPH-DRO by GC with Silica Gel

Analysis	Batch Number	Sample Number	Analysis Date
TPH-DRO AK C10-C25 w/Si Gel	122060032A	6727319RE	07/26/2012 02:51:42
		6727319RE	07/26/2012 23:23:23
		6727320RE	07/26/2012 03:20:17
		6727320RE	07/26/2012 23:51:53
TPH-DRO AK C10-C25 w/Si Gel	122060033A	PBLK33206	07/27/2012 22:10:00
		LCS33206	07/27/2012 22:38:00
		LCSD33206	07/27/2012 23:07:00
		6727319RE	07/27/2012 23:35:40
		6727320	07/28/2012 00:04:00
TPH-DRO AK C10-C25 w/Si Gel	122090011A	6727319RE	07/28/2012 20:29:34
TPH-DRO AK C10-C25 w/Si Gel	122120036A	PBLK36212	08/02/2012 06:41:00
		LCS36212	08/02/2012 07:09:00
		LCSD36212	08/02/2012 07:38:00
		6727319	08/02/2012 08:35:00

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Quality Control Summary
Method Blank
EPH/Miscellaneous GC
SDG: AKF94
Matrix: LIQUID

Fraction: TPH-DRO by GC with Silica Gel

122060033A / PBLK33206 **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
TPH-DRO AK C10-C25 w/Si Gel	07/27/12	N.D.	mg/l	0.050	0.25

122120036A / PBLK36212 **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
TPH-DRO AK C10-C25 w/Si Gel	08/02/12	N.D.	mg/l	0.050	0.25

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Quality Control Summary
Surrogates
EPH/Miscellaneous GC
SDG: AKF94
Matrix: LIQUID

Fraction: TPH-DRO by GC with Silica Gel

122060033A	Orthoterphenyl	
	Spike Added	12 mg/l
Sample	% Recovery	Limits
PBLK33206	72	60 - 120
LCS33206	84	60 - 120
LCSD33206	87	60 - 120
6727319RE	74	50 - 150
6727320	68	50 - 150

122090011A	Orthoterphenyl	
	Spike Added	11.52 mg/l
Sample	% Recovery	Limits
6727319RE	95	50 - 150

122120036A	Orthoterphenyl	
	Spike Added	12 mg/l
Sample	% Recovery	Limits
PBLK36212	72	60 - 120
LCS36212	77	60 - 120
LCSD36212	81	60 - 120
6727319	95	50 - 150

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Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: AKF94
Matrix: LIQUID

EPH/Miscellaneous GC

Fraction: TPH-DRO by GC with Silica Gel

LCS: LCS33206 LCSD: LCSD33206	Batch: **122060033A** (Sample number(s): 6727319-6727320)							
Analyte	**Spike Added mg/l**	**LCS Conc mg/l**	**LCSD Conc mg/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
TPH-DRO AK C10-C25 w/Si Gel	0.8	0.56	0.59	70 *	74 *	75-125	5	20

LCS: LCS36212 LCSD: LCSD36212	Batch: **122120036A** (Sample number(s): 6727319)							
Analyte	**Spike Added mg/l**	**LCS Conc mg/l**	**LCSD Conc mg/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
TPH-DRO AK C10-C25 w/Si Gel	0.61	0.5	0.54	81	88	75-125	8	20

File Name: Y:\CP24\AKDL192A.CAL
Version: 5

Creator: HEW2027
Description: ALASKA DRO
Reason for change:

HEW2027
7/12/12

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 0
Reference peak area reject threshold: 0
Amount units: PPM
No default component

used L192.0004-19.RAW
L192.0027.RAW MDL
L192.0028.RAW ICV

Method of calculating data point averages: Current update equal to cal data
Print calibration update report

✓ 7/13/12

All levels are normal data points.

1 DRO RF C10-<C25
Expected retention time: 0.001 minutes
Search window: 0 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 23264.69

Single peak quantification by area

Y = 23264.69 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.956647
Average error: 5.522%
Average CF: 23264.69
RSD: 7.806%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	100	2435460	24354.6	4.685	Manual	7/12/2012 3:58:58 PM
2	400	9671504	24178.76	3.929	Manual	7/12/2012 3:59:08 PM
3	800	1.88982E+07	23622.75	1.539	Manual	7/12/2012 3:59:13 PM
4	1600	3.85834E+07	24114.63	3.653	Manual	7/12/2012 3:59:20 PM
5	3200	6.416874E+07	20052.73	-13.806	Manual	7/12/2012 3:59:25 PM

2 C10
Expected retention time: 2.71 minutes
Search window: 0.05 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by area

Y = 0.0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 1
Average error: 0.000%
Average CF: 0
RSD: 0.000%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1	0	0	0.000	Manual	7/12/2012 3:57:42 PM
2	(-1)	0	--	--	Manual	7/12/2012 3:57:46 PM
3	(-1)	0	--	--	\\USLAN-CHROMPERF\ACTIVE-DATA\CP24\\L122B.0012.BND	5/3/2012 8:57:46 PM
4	(-1)	0	--	--	Manual	7/12/2012 3:57:48 PM
5	(-1)	0	--	--	\\USLAN-CHROMPERF\ACTIVE-DATA\CP24\\L122B.0014.BND	5/3/2012 8:57:50 PM

3 Capric Acid
Expected retention time: 6.2 minutes
Search window: 0.1 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 14126.02

Single peak quantification by area

Y = 14126.02 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9662766
Average error: 12.708%
Average CF: 14126.02
RSD: 18.263%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	5.1266	73506.77	14338.31	1.503	Manual	7/12/2012 3:56:53 PM
2	10.2531	98820.34	9638.094	-31.771	Manual	7/12/2012 3:57:00 PM
3	25.6329	386740.6	15087.66	6.808	Manual	7/12/2012 3:57:06 PM
4	41.0126	651300.5	15880.5	12.420	Manual	7/12/2012 3:57:19 PM
5	51.2657	804130.3	15685.54	11.040	Manual	7/12/2012 3:57:25 PM

4 o-Terphenyl SURR
Expected retention time: 9.92 minutes
Search window: 0.05 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 26535.37

Single peak quantification by area

Y = 26535.37 X + 0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 0.9829946
Average error: 8.931%.
Average CF: 26535.37
RSD: 10.620%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	48014.59	24007.29	-9.527	Manual	7/12/2012 3:58:06 PM
2	8	243999	30499.88	14.940	Manual	7/12/2012 3:58:14 PM
3	16	455933.3	28495.83	7.388	Manual	7/12/2012 3:58:21 PM
4	20	499674.5	24983.72	-5.847	Manual	7/12/2012 3:58:28 PM
5	40	987605.2	24690.13	-6.954	Manual	7/12/2012 3:58:35 PM

5 C25
Expected retention time: 12.19 minutes
Search window: 0.1 minutes
No retention time reference component
No response proxy component
Group number: 0
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by area

Y = 0.0

Average CF fit with equal weighting, forced to origin
Coefficient of determination: 1
Average error: 0.000%
Average CF: 0
RSD: 0.000%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	1	0	0	0.000	Manual	7/12/2012 3:57:48 PM
2	(-1)	0	--	--	Manual	7/12/2012 3:57:49 PM
3	(-1)	0	--	--	Manual	7/12/2012 3:57:50 PM
4	(-1)	0	--	--	Manual	7/12/2012 3:57:50 PM
5	(-1)	0	--	--	Manual	7/12/2012 3:57:52 PM

Sample Data

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LOQ/MDL Summary
EPH/Miscellaneous GC

SDG: AKF94

Fraction: TPH-DRO by GC with Silica Gel

02244: TPH-DRO AK C10-C25 w/Si Gel Analyte Name	Default MDL	Default LOQ	Units
TPH-DRO AK C10-C25 w/Si Gel	0.050	0.25	mg/l

Lancaster Laboratories-Range Data Summary

Sample Name: 6727319DF10 CDJM4 Sample ID: AB **Batchnumber:** 122060032A
Sample Amount: 1053. Total Volume: 10. ml Analyst: 2268 SDG:AKF94 State: AK
Analyses: 01741 02244

Injection Summary

Injected on : 7/26/2012 23:23:23
Instrument : CP24--H5386A
Result file : L208.0006.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 132% (50-150) Conc.: 15.083

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	35866125	14.6234	2.3742	0.4748		ppm
☐ o-Terphenyl SURR	9.91 (9.87 - 9.97)	42146	15.0830				ppb

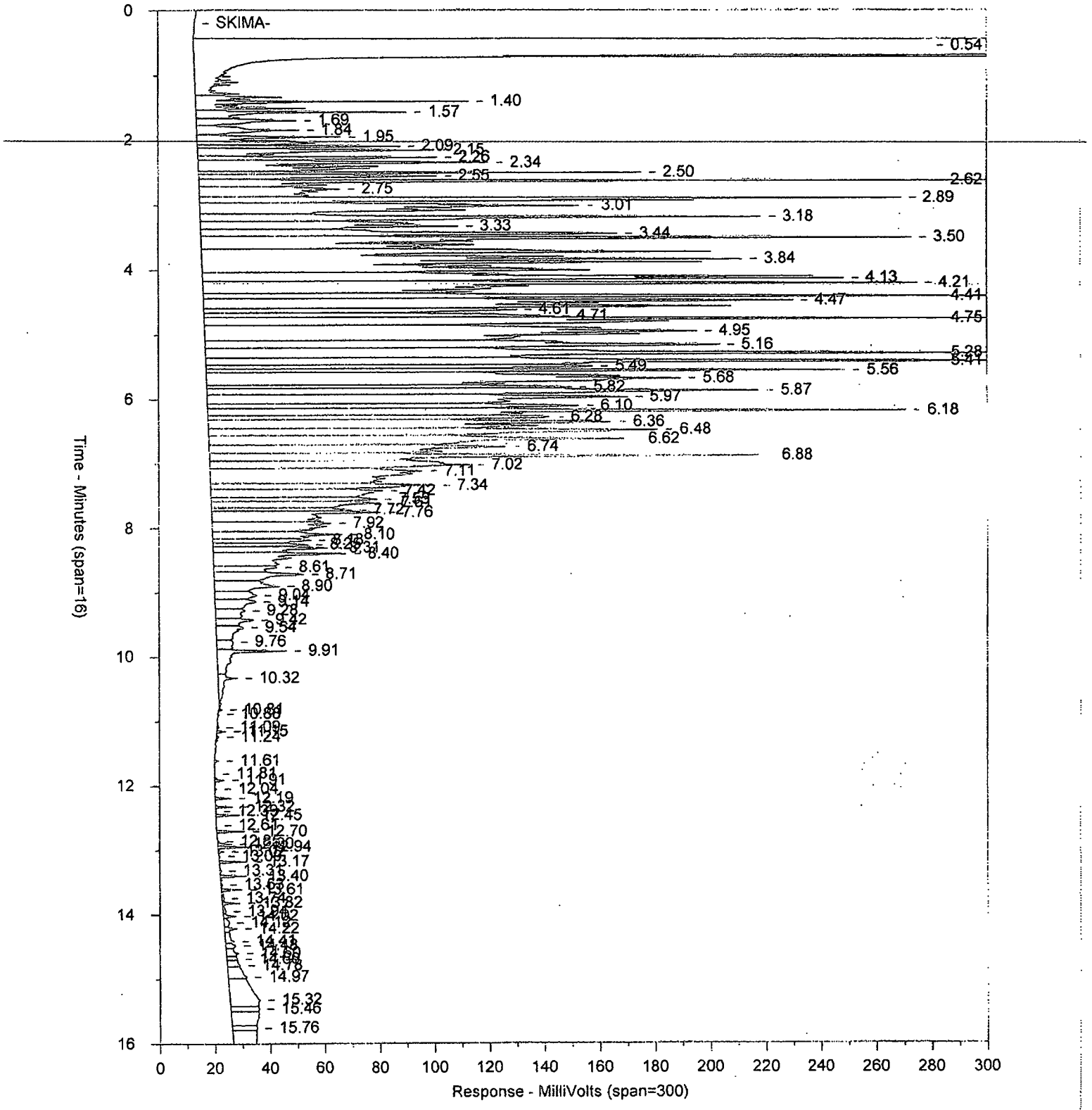
Comments: LCSD out low all 1220900114

Reviewed by: th
Date: 8/2/12

Verified by: Tracy A. Cole
Date: AUG 09 2012

Tracy A. Cole
Senior Specialist

Sample: 6727319DF10 ABCDJM4 T 122060032A 01741 AK102/AK103 04/08/02
File: L208.0006.RAW
6727319DF10 ABCDJM4 T 122060032A 01741 AK 102/AK 103 04/08/02



Chrom Perfect Chromatogram Report

Sample: 6727319DF10 ABCDJM4 T 122060032A 01741 AKK0[illegible]AK0803 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1053
Analyst: 2268

Injected on: 7/26/2012 11:23:23 PM
GC Column: ZB5 30m X 0.32mm X 0.25un

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
14	2.75	C10	0.00	363003.5
40	6.18	Capric Acid	627.74	933750.9
70	9.91	o-Terphenyl SURR	45.65	127557.1
81	12.19	C25	0.00	7437.498

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	709.085	35866120.0
2	9.87	9.97	48.071	127557.1

********** RESULTS TABLE **********

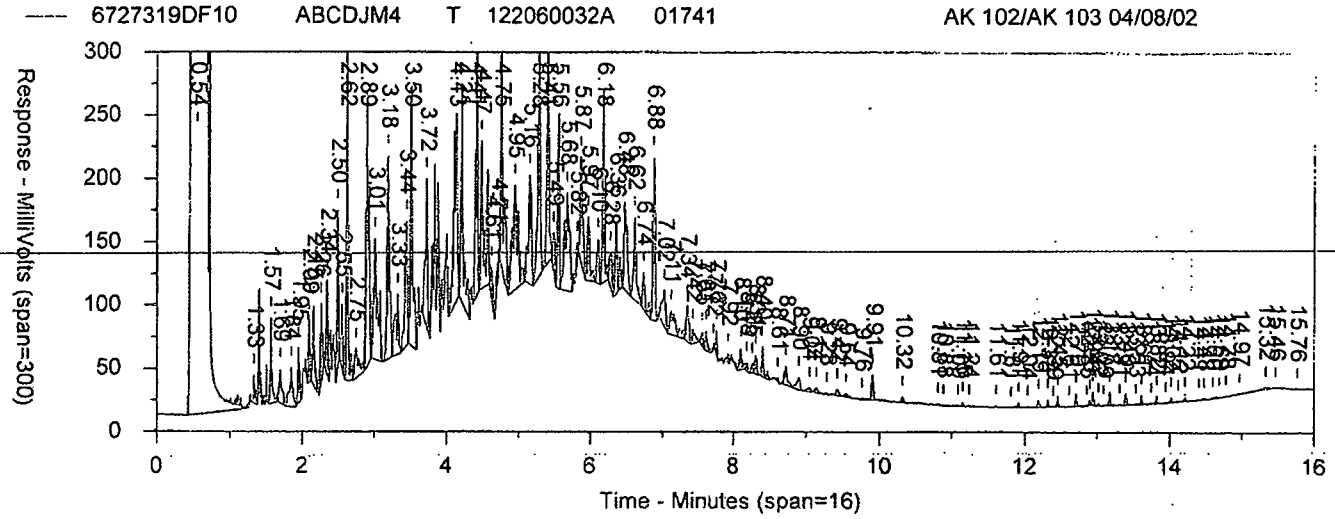
C10-<C25 DRO AREA = 3.586612E+07
C10-<C25 AMT = 14.58853

FILES:

Area File: L208.0006.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/26/2012 11:43:23 PM
File reported on: 7/26/2012 at 11:43:29 PM

Chrom Perfect Chromatogram Report

Replot: 6727319DF10 ABCDJM4 T 122060032A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L208.0006.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1053
Analyst: 2268

Injected on: 7/26/2012 11:23:23 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
14	2.75	C10	0.00	93652.09
40	6.18	Capric Acid	0.18	267040.1
70	9.91	o-Terphenyl SURR	0.02	42145.85
81	12.19	C25	0.00	7437.498

O-TERPHENYL % RECOVERY = 132.3575 %

Capric Acid % recovery = 38.26746 %

FILES:

Area File: L208.0006.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/26/2012 11:43:23 PM
File reported on: 7/26/2012 at 11:43:35 PM

Lancaster Laboratories-Range Data Summary

Sample Name: 6727319RDF10 CDJM4 Sample ID: AB **Batchnumber:** 122090011A
Sample Amount: 1042. Total Volume: 10. ml Analyst: 2268 SDG:AKF94 State: AK
Analyses: 01741 02244

Injection Summary

Injected on : 7/28/2012 20:29:34
Instrument : CP24--H5386A
Result file : L210.0010.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 95% (50-150) Conc.: 10.967

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	25369998	10.4529	2.3992	0.4798		ppm
☐ o-Terphenyl SURR	9.90 (9.87 - 9.97)	30325	10.9670				ppb

Comments: RX in-hold

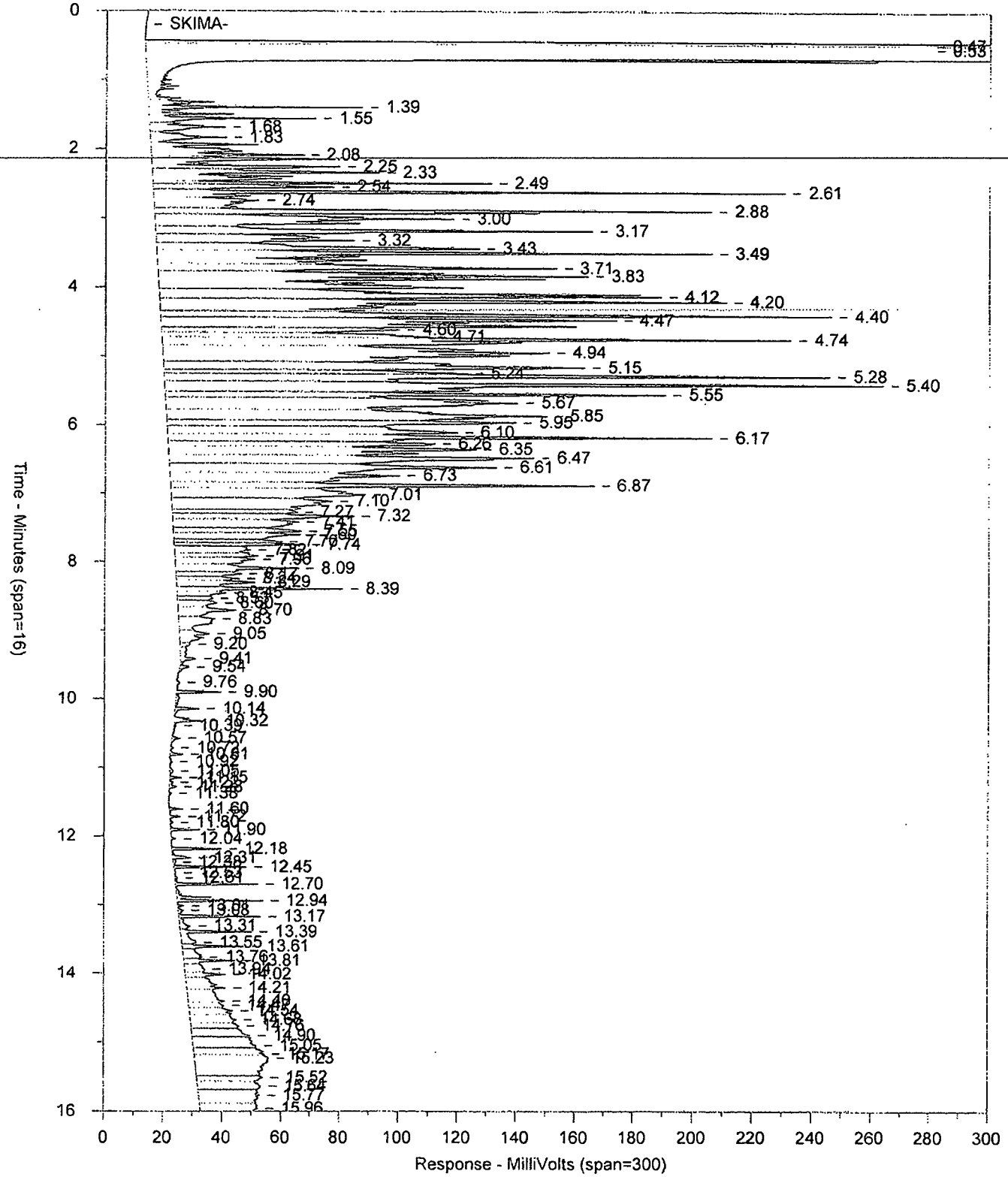
Reviewed by: gh
Date: 8/6/12

Verified by: Tracy A. Cole
Date: AUG 09 2012

Tracy A. Cole
Senior Specialist

Sample: 6727319RDF10 ABCDJM4 T 122090011A 01741 AK 102/AK 103 04/08/02
File: L210.0010.RAW

6727319RDF10 ABCDJM4 T 122090011A 01741 AK 102/AK 103 04/08/02



Chrom Perfect Chromatogram Report

Sample: 6727319RDF10 ABCDJM4 T 122090011A 01741 AKK1022A103 03 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1042
Analyst: 2268

Injected on: 7/28/2012 8:29:34 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
13	2.74	C10	0.00	250935.4
39	6.17	Capric Acid	448.47	660118
73	9.90	o-Terphenyl SURR	10.97	30324.97
91	12.18	C25	0.00	20397.32

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	478.735	25370000.0
2	9.87	9.97	11.428	30325.0

********** RESULTS TABLE **********

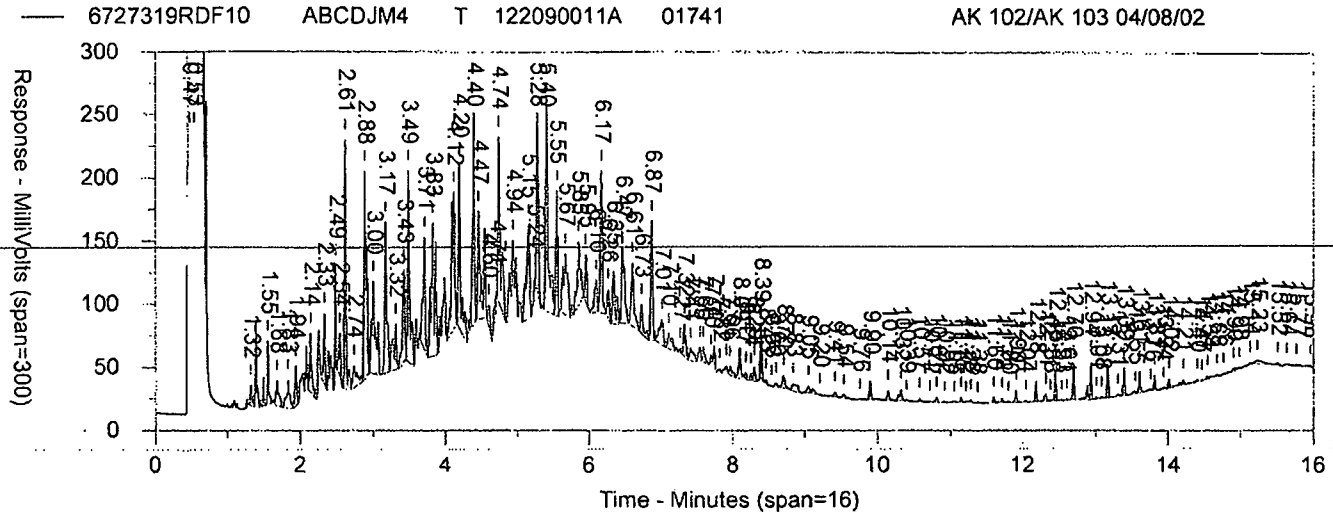
C10-<C25 DRO AREA = 2.537E+07
C10-<C25 AMT = 10.45288

FILES:

Area File: L210.0010.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/28/2012 8:49:35 PM
File reported on: 7/30/2012 at 6:35:00 PM

Chrom Perfect Chromatogram Report

Replot: 6727319RDF10 ABCDJM4 T 122090011A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L210.0010.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1042
Analyst: 2268

Injected on: 7/28/2012 8:29:34 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
13	2.74	C10	0.00	71297.9
39	6.17	Capric Acid	0.13	197318.7
73	9.90	o-Terphenyl SURR	0.01	30324.97
91	12.18	C25	0.00	19840.63

O-TERPHENYL % RECOVERY = 95.23444 %

Capric Acid % recovery = 28.27623 %

FILES:

Area File: L210.0010.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/28/2012 8:49:35 PM
File reported on: 7/30/2012 at 6:36:00 PM

Lancaster Laboratories-Range Data Summary

Sample Name: 6727319RS DF10 CDJM4 Sample ID: AC **Batchnumber:** 122120036A
Sample Amount: 1053. Total Volume: 10. ml Analyst: 2268 SDG:AKF94 State: AK
Analyses: 02244

Injection Summary

Injected on : 8/2/2012 08:35:12
Instrument : CP24--H5386A
Result file : L214.0027.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 95% (50-150) Conc.: 10.823

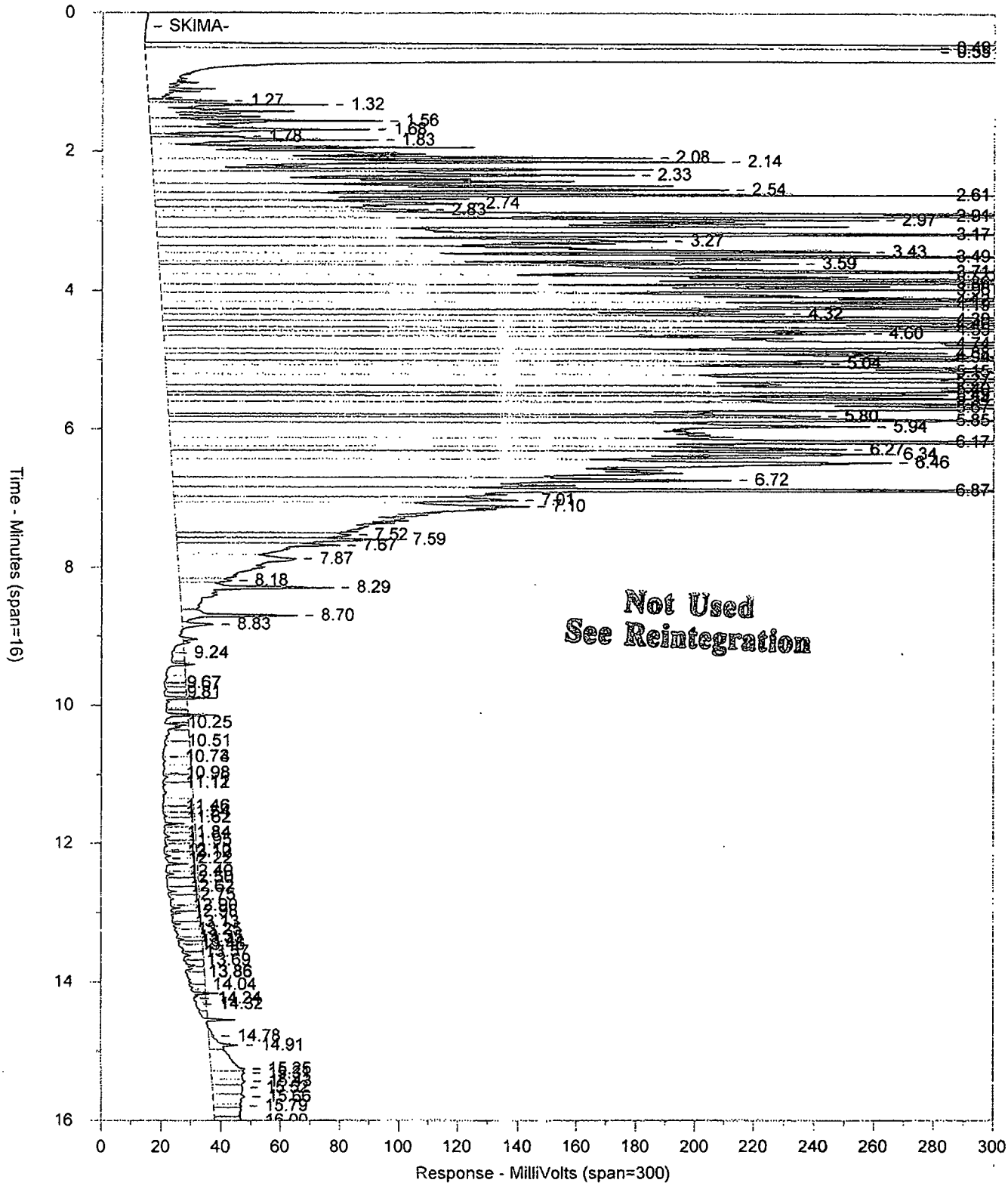
Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	60876610	24.8376	2.3742	0.4748		ppm
☐ o-Terphenyl SURR	9.89 (9.87 - 9.97)	30241	10.8230				ppb

Comments: RX in hold

Reviewed by: th
Date: 8/6/12

Verified by: Tracy A. Cole
Date: AUG 06 2012
Tracy A. Cole
Senior Specialist

Sample: 6727319RS DF10 ACCDJM4 T 122120036A 02244 AK 102/AK 103 04/08/02
File: L214.0027.RAW



Chrom Perfect Chromatogram Report

Sample: 6727319RS DF10 ACCDJM4 T 122120036A 02244 AK 102/AK103 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1053
Analyst: 2268

Injected on: 8/2/2012 8:35:12 AM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
14	2.74	C10	0.00	442285.8
46	6.17	Capric Acid	1253.36	1864330
85	12.22	C25	0.00	110171.8

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	1319.784	59699250.0
2	9.87	9.97	0.000	0.0

********** RESULTS TABLE **********

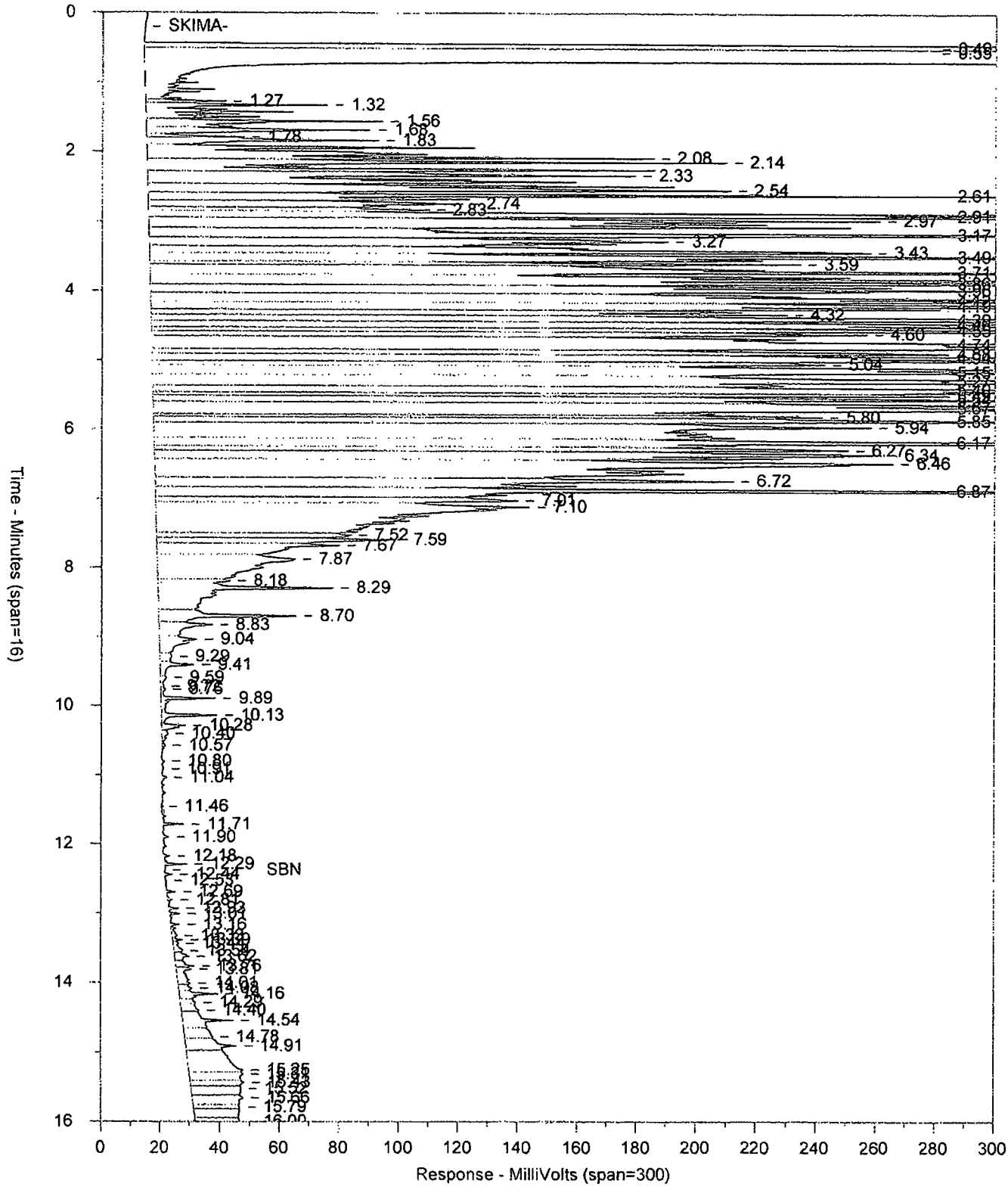
C10-<C25 DRO AREA = 5.969925E+07
C10-<C25 AMT = 24.36931

FILES:

Area File: L214.0027.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 8/2/2012 5:54:56 PM
File reported on: 8/2/2012 at 6:55:45 PM

Not Used
See Reintegration

Sample: 6727319RS DF10 ACCDJM4 T 122120036A 02244 AK 102/AK 103 04/08/02
File: L214.0027.RAW



Chrom Perfect Chromatogram Report

Sample: 6727319RS DF10 ACCDJM4 T 122120036A 02244 AK 102/AK103 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1053
Analyst: 2268

Injected on: 8/2/2012 8:35:12 AM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
14	2.74	C10	0.00	453942.3
46	6.17	Capric Acid	1278.30	1901433
68	9.89	o-Terphenyl SURR	16.25	45412.64
84	12.18	C25	0.00	1130.081

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	1363.164	60876610.0 M
2	9.87	9.97	17.114	45412.6

********** RESULTS TABLE **********

C10-<C25 DRO AREA = 6.087661E+07
C10-<C25 AMT = 24.83137

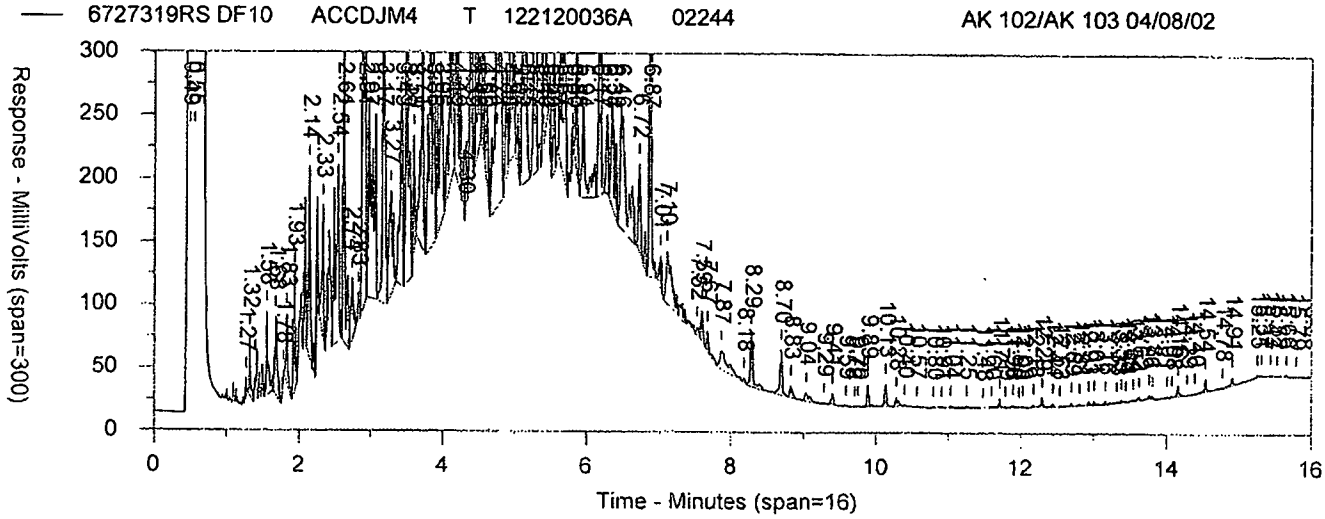
FILES:

Area File: L214.0027.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 8/2/2012 7:35:11 PM
File reported on: 8/2/2012 at 7:35:11 PM

M = Manually Integrated
Analyst AH 8/2/12
Approved by [illegible] 8-8-12
Circle Reason 1 (2) 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

Chrom Perfect Chromatogram Report

Replot: 6727319RS DF10 ACCDJM4 T 122120036A 02244 AK 102/103 AK 102/AK 103 04/08/02
File: L214.0027.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1053
Analyst: 2268

Injected on: 8/2/2012 8:35:12 AM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
14	2.74	C10	0.00	127737.6
46	6.17	Capric Acid	0.45	672866.7
68	9.89	o-Terphenyl SURR	0.01	30240.63
84	12.18	C25	0.00	3106.252

O-TERPHENYL % RECOVERY = 94.96957 %

Capric Acid % recovery = 96.42336 %

FILES:

Area File: L214.0027.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 8/2/2012 5:54:56 PM
File reported on: 8/2/2012 at 6:57:45 PM

Lancaster Laboratories Range Data Summary

Sample Name: 6727320DF10 CDJ4D Sample ID: AB **Batchnumber:** 122060032A
Sample Amount: 1050. Total Volume: 10. ml Analyst: 2268 SDG: AKF94 State: AK
Analyses: 01741 02244

Injection Summary

Injected on : 7/26/2012 23:51:53
Instrument : CP24--H5386A
Result file : L208.0007.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 124% (50-150) Conc.: 14.141

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	29937767	12.2394	2.381	0.4762		ppm
☐ o-Terphenyl SURR	9.91 (9.87 - 9.97)	39399	14.1410				ppb

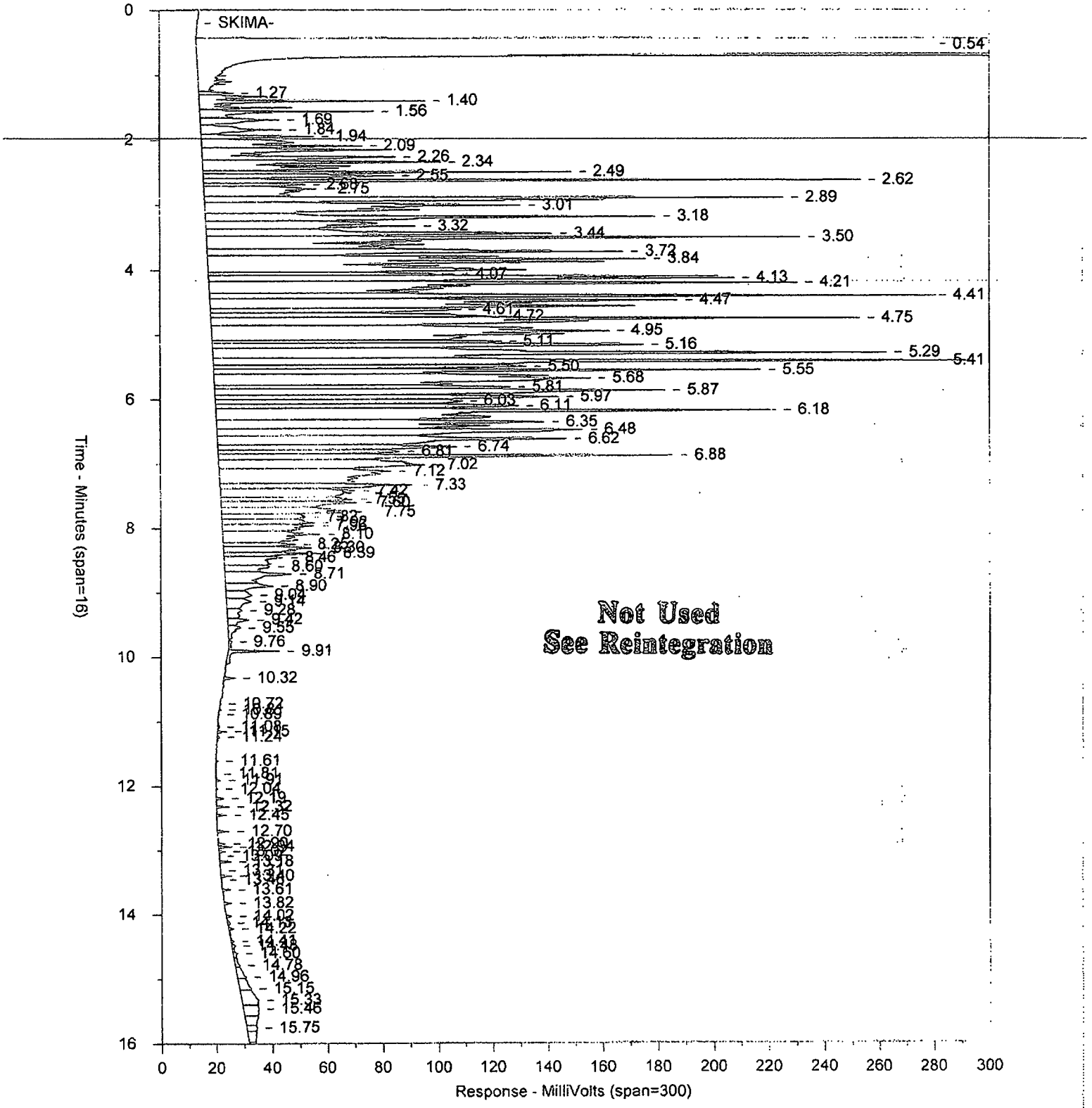
Comments: _____

Reviewed by: JL Date: 7/27/12

Verified by: Tracy A. Cole Date: JUL 30 2012

Tracy A. Cole
Senior Specialist

Sample: 6727320DF10 ABCDJ4D T 122060032A 01741 AK102/AK103 04/08/02
File: L208.0007.RAW
---- 6727320DF10 ABCDJ4D T 122060032A 01741 AK 102/AK 103 04/08/02



Chrom Perfect Chromatogram Report

Sample: 6727320DF10 ABCDJ4D T 122060032A 01741 AKA0202K1003 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/26/2012 11:51:53 PM
GC Column: ZB5 30m X 0.32mm X 0.25un

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
14	2.68	C10	0.00	82895.23
45	6.18	Capric Acid	755.00	1119847
76	9.91	o-Terphenyl SURR	14.14	39398.96
88	12.19	C25	0.00	3675.518

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	807.602	28345670.0
2	9.87	9.97	14.848	39399.0

********** RESULTS TABLE **********

C10-<C25 DRO AREA = 2.834567E+07
C10-<C25 AMT = 11.58767

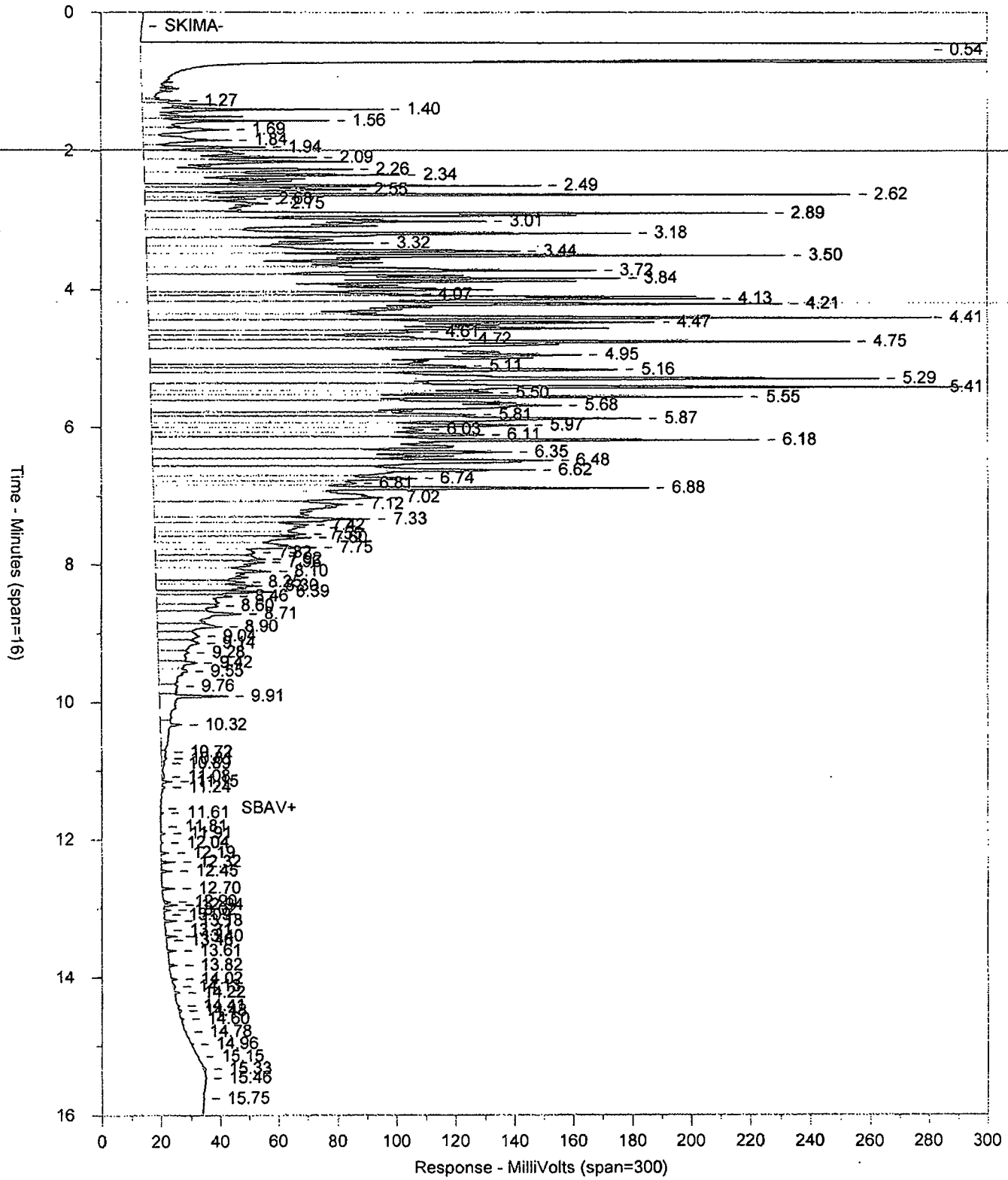
FILES:

Area File: L208.0007.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/27/2012 12:11:54 AM
File reported on: 7/27/2012 at 12:11:59 AM

Not Used
See Reintegration

Chrom Perfect Chromatogram Report

Sample: 6727320DF10 ABCDJ4D T 122060032A 01741 AK102/AK103 04/08/02
File: L208.0007.RAW
—— 6727320DF10 ABCDJ4D T 122060032A 01741 AK 102/AK 103 04/08/02



AKF94 0168

Chrom Perfect Chromatogram Report

Sample: 6727320DF10 ABCDJ4D T 122060032A 01741 AKA02K0003 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/26/2012 11:51:53 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
14	2.68	C10	0.00	86428.61
45	6.18	Capric Acid	778.54	1154761
76	9.91	o-Terphenyl SURR	48.60	135401.4
88	12.19	C25	0.00	3675.518

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	868.497	29937770.0 M
2	9.87	9.97	51.027	135401.4

********** RESULTS TABLE **********

C10-<C25 DRO AREA = 2.993777E+07
C10-<C25 AMT = 12.20012

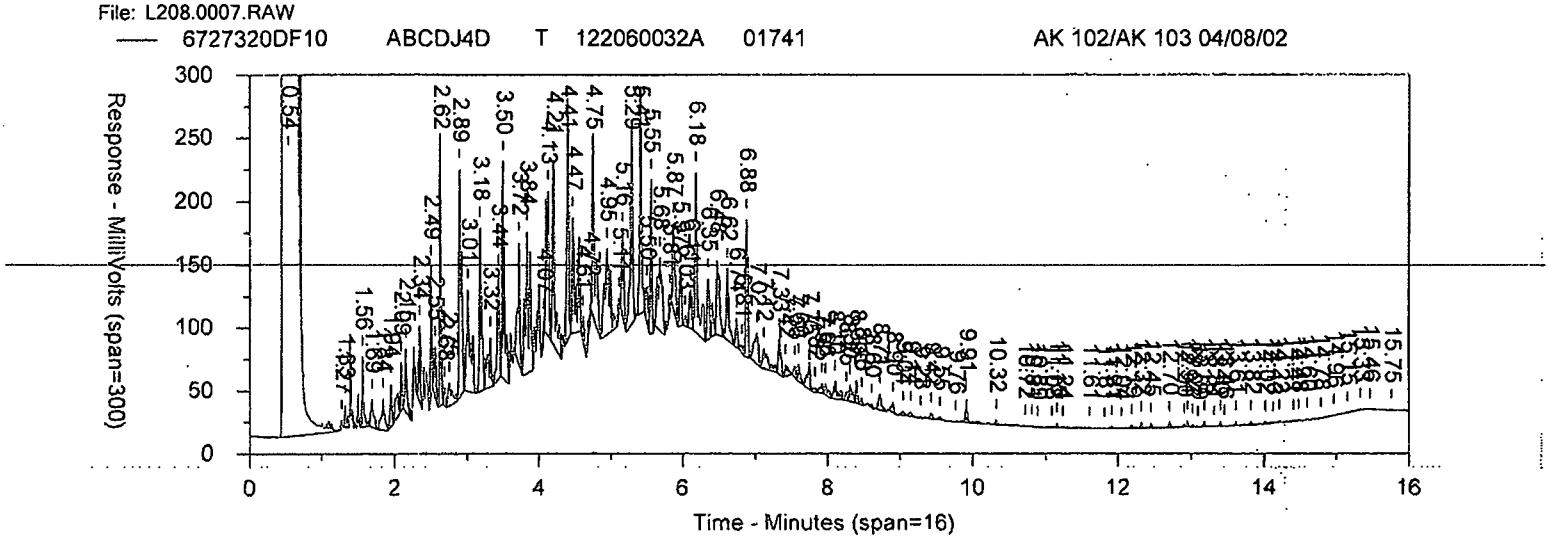
FILES:

Area File: L208.0007.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/27/2012 5:11:24 PM
File reported on: 7/27/2012 at 5:11:26 PM

M = Manually Integrated
Analyst JR 7/27/12
Approved by DC 7/30/12
Circle Reason 1 (2) 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

Chrom Perfect Chromatogram Report

Replot: 6727320DF10 ABCDJ4D T 122060032A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L208.0007.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/26/2012 11:51:53 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
14	2.68	C10	0.00	21408.34
45	6.18	Capric Acid	0.22	326063.7
76	9.91	o-Terphenyl SURR	0.01	39398.96
88	12.19	C25	0.00	3675.518

O-TERPHENYL % RECOVERY = 123.731 %

Capric Acid % recovery = 46.72568 %

FILES:

Area File: L208.0007.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/27/2012 12:11:54 AM
File reported on: 7/27/2012 at 12:12:05 AM

Lancaster Laboratories-Range Data Summary

Sample Name: 6727320S DF10 CDJ4D Sample ID: AC **Batchnumber:** 122060033A
Sample Amount: 1050. Total Volume: 10. ml Analyst: 2268 SDG: AKF94 State: AK
Analyses: 02244

Injection Summary

Injected on : 7/28/2012 00:04:12
Instrument : CP24--H5386A
Result file : L209.0011.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 68% (50-150) Conc.: 7.79

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	17273231	7.0622	2.381	0.4762		ppm
☐ o-Terphenyl SURR	9.90 (9.87 - 9.97)	21704	7.7900				ppb

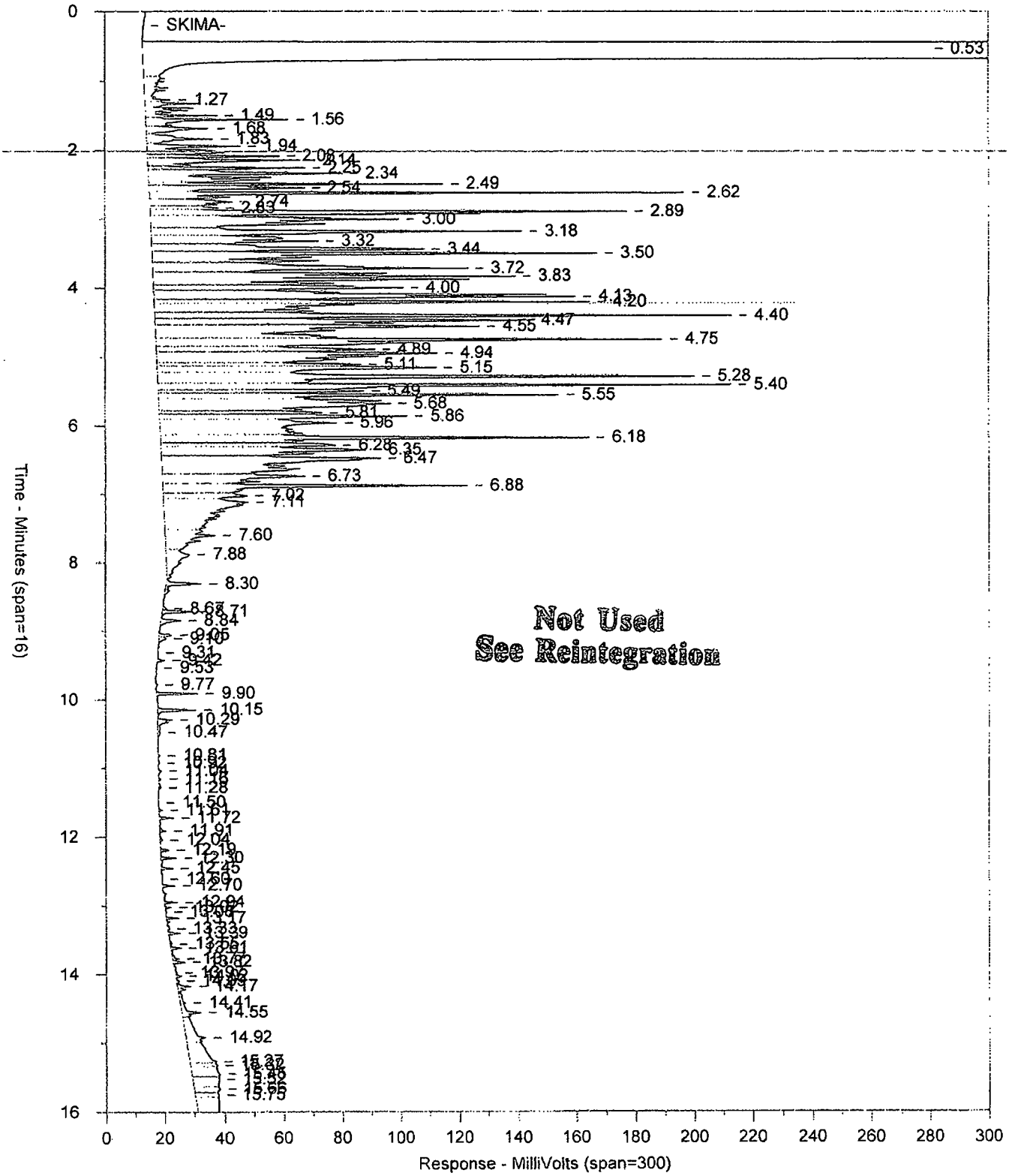
Comments: _____

Reviewed by: [illegible] Verified by: Tracy A. Cole

Date: 8/1/12 Date: AUG 08 2012

Tracy A. Cole
Senior Specialist

Sample: 6727320S DF10 ACCDJ4D T 122060033A 02244 AK102/AK103 04/08/02
File: L209.0011.RAW
—— 6727320S DF10 ACCDJ4D T 122060033A 02244 AK 102/AK 103 04/08/02



Chrom Perfect Chromatogram Report

Sample: 6727320S DF10 ACCDJ4D T 122060033A 02244 AKK10222K0303 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/28/2012 12:04:12 AM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
15	2.74	C10	0.00	123752.7
44	6.18	Capric Acid	313.84	465495.6
64	9.90	o-Terphenyl SURR	7.79	21704.17
78	12.19	C25	0.00	3783.333

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	337.710	16162710.0
2	9.87	9.97	8.179	21704.2

********** RESULTS TABLE **********

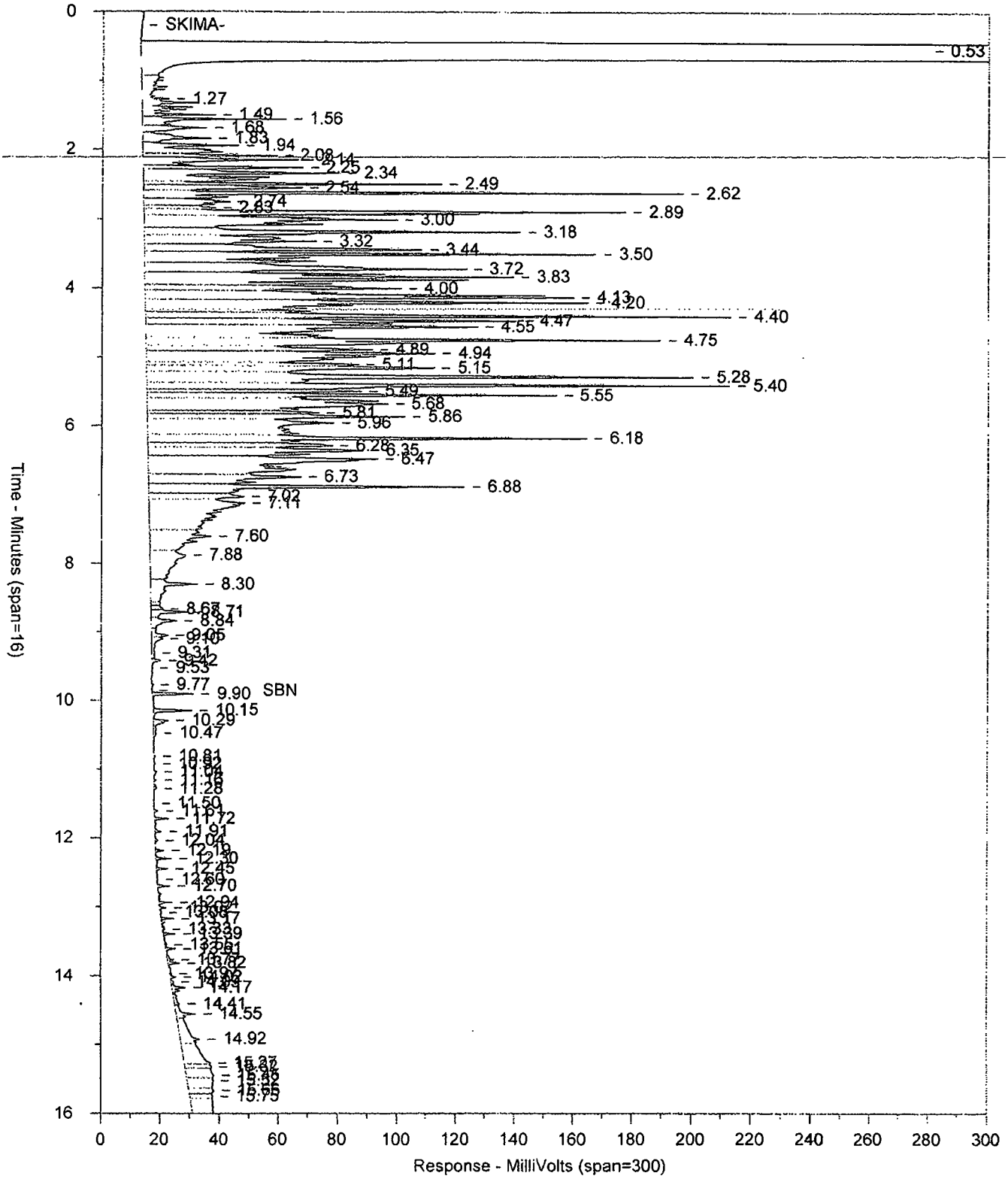
C10-<C25 DRO AREA = 1.616271E+07
C10-<C25 AMT = 6.607603

FILES:

Area File: L209.0011.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/28/2012 12:24:12 AM
File reported on: 7/28/2012 at 12:51:31 PM

Not Used
See Reintegration

Sample: 6727320S DF10 ACCDJ4D T 122060033A 02244 AK 102/AK 103 04/08/02
File: L209.0011.RAW



Chrom Perfect Chromatogram Report

Sample: 6727320S DF10 ACCDJ4D T 122060033A 02244 AKK1002K03 03 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/28/2012 12:04:12 AM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
15	2.74	C10	0.00	131512.8
44	6.18	Capric Acid	329.44	488632.2
64	9.90	o-Terphenyl SURR	7.74	21579.17
78	12.19	C25	0.00	3783.333

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	354.042	17273230.0 M
2	9.87	9.97	8.132	21579.2

********** RESULTS TABLE **********

C10-<C25 DRO AREA = 1.727323E+07
C10-<C25 AMT = 7.062267

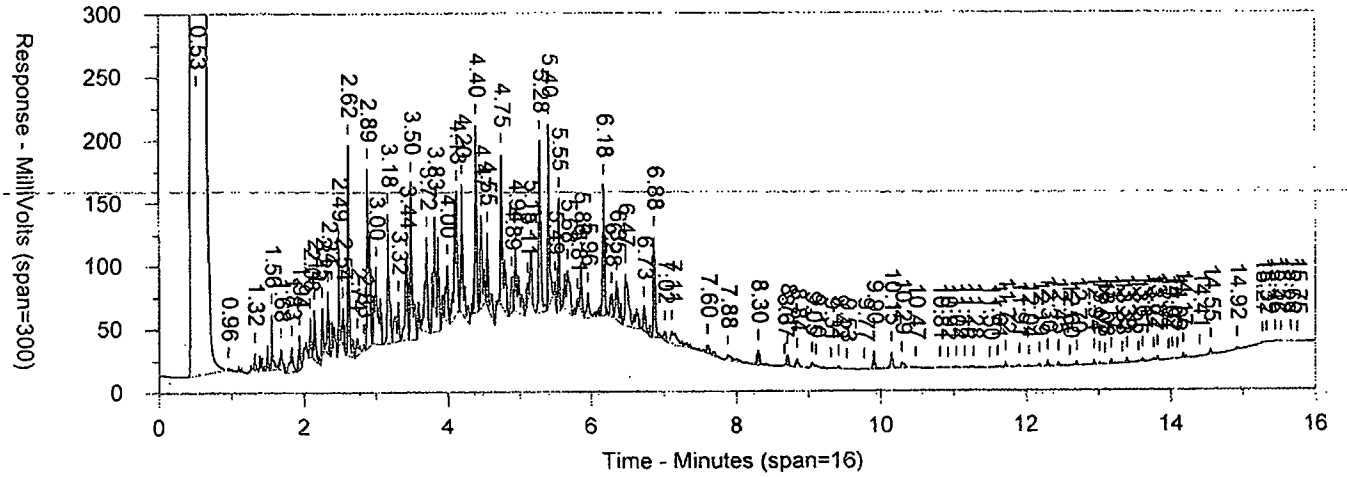
FILES:

Area File: L209.0011.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/28/2012 1:05:47 PM
File reported on: 7/28/2012 at 1:05:49 PM

M = Manually Integrated
Analyst Ph 7/28/12
Approved by DOP 8-8-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

Chrom Perfect Chromatogram Report

Replot: 6727320S DF10 ACCDJ4D T 122060033A 02244 AK 102/103 AK 102/AK 103 04/08/02
File: L209.0011.RAW
—— 6727320S DF10 ACCDJ4D T 122060033A 02244 AK 102/AK 103 04/08/02



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1050
Analyst: 2268

Injected on: 7/28/2012 12:04:12 AM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 10

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
15	2.74	C10	0.00	37821.37
44	6.18	Capric Acid	0.12	175202.6
64	9.90	o-Terphenyl SURR	0.01	21704.17
78	12.19	C25	0.00	3783.333

O-TERPHENYL % RECOVERY = 68.16113 %

Capric Acid % recovery = 25.10694 %

FILES:

Area File: L209.0011.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/28/2012 12:24:12 AM
File reported on: 7/28/2012 at 12:52:51 PM

Standards Data

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\Uslan-chromperf\active-data\CP24\L192.seq

Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Number of Entries: 31

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L192.01R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
2	CONDITIONER	2	MISC	AA	L192.02R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
3	CONDITIONER	3	MISC	AA	L192.03R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
4	AKRTX1232B	4	CCAL	WH	L192.04R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
5	CAPR11232B	5	ICAL	AA	L192.05R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
6	CAPR21232C	6	ICAL	AA	L192.06R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
7	CAPR31232B	7	ICAL	AA	L192.07R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
8	CAPR41232B	8	ICAL	AA	L192.08R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
9	CAPR51232B	9	ICAL	AA	L192.09R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
10	AKSS11232A	10	ICAL	AA	L192.10R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
11	AKSS21232A	11	ICAL	AA	L192.11R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
12	AKSS31232A	12	ICAL	AA	L192.12R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
13	AKSS41232A	13	ICAL	AA	L192.13R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
14	AKSS51232A	14	ICAL	AA	L192.14R	P24\AKRLSUM.MET	1	1	1	0	1219199999	
15	1FUL11232D	15	ICAL	AA	L192.15R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
16	1FUL21232C	16	ICAL	AA	L192.16R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
17	1FUL31232G	17	ICAL	AA	L192.17R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
18	1FUL41232C	18	ICAL	AA	L192.18R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
19	1FUL51232C	19	ICAL	AA	L192.19R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
20	MECL2	20	MISC	AA	L192.20R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
21	AKSW11232A	21	ICAL	AA	L192.21R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
22	AKSW21232A	22	ICAL	AA	L192.22R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
23	AKSW31232A	23	ICAL	AA	L192.23R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
24	AKSW41232A	24	ICAL	AA	L192.24R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
25	AKSW51232A	25	ICAL	AA	L192.25R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
26	MECL2	26	MISC	AA	L192.26R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	
27	1MDLX1232C	27	CCAL	LQ	L192.27R	:P24\AKDLSTD.MET	1	1	1	0	1219199999	
28	AKCDX1232B	28	CCAL	BN	L192.28R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
29	AKMDX1232B	29	CCAL	CL	L192.29R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
30	AKCRX1232B	30	CCAL	BO	L192.30R	:P24\AKRLSTD.MET	1	1	1	0	1219199999	
31	AKRTX1232B	31	CCAL	WI	L192.31R	A\CP24\AKRTL.MET	1	1	1	0	1219199999	

Set-up by: Kathy Williams Date: 7/12/12

7/12/2012

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24\L207.seq

Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Number of Entries: 31

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L207.01R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
2	AKRTX1232C	2	CCAL	WR	L207.02R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
3	AKFL41232B	3	CCAL	UK	L207.03R	:P24\AKDLSTD.MET	1	1	1	0	1220699999	
4	BLANKA 7/25/12	4	BLK	AA	L207.04R	P24\AKDLSUM.MET	1000	1	1	0	122070011A	01741
5	LCSA 7/25/12	5	LCS	AA	L207.05R	P24\AKDLSUM.MET	1000	1	1	0	122070011A	01741
6	LCSDA 7/25/12	6	LCSD	AA	L207.06R	P24\AKDLSUM.MET	1000	1	1	0	122070011A	01741
7	6723653R	7	T	AA	L207.07R	P24\AKDLSUM.MET	1045	1	1	0	122070011A	01741
8	MECL2	8	MISC	AA	L207.08R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
9	BLANKA 7/25/12	9	BLK	AA	L207.09R	P24\AKDLSUM.MET	1000	1	1	0	122060032A	01741
10	LCSA 7/25/12	10	LCS	AA	L207.10R	P24\AKDLSUM.MET	1000	1	1	0	122060032A	01741
11	LCSDA 7/25/12	11	LCSD	AA	L207.11R	P24\AKDLSUM.MET	1000	1	1	0	122060032A	01741
12	6727319	12	T	AA	L207.12R	P24\AKDLSUM.MET	1053	1	1	0	122060032A	01741
13	6727320	13	T	AA	L207.13R	P24\AKDLSUM.MET	1050	1	1	0	122060032A	01741
14	6729226	14	T	AA	L207.14R	P24\AKRLSUM.MET	1052	1	1	0	122060032A	01741
15	MS1220732B	15	MISC	AA	L207.15R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
16	AKFL21232B	16	CCAL	WL	L207.16R	:P24\AKDLSTD.MET	1	1	1	0	1220699999	
17	AKRTX1232C	17	CCAL	WS	L207.17R	A\CP24\AKRTL.MET	1	1	1	0	1220699999	
18	FLA_21232C	18	CCAL	ZU	L207.18R	CP24\FLALSTD.MET	1	1	1	0	1220699999	
19	BLANKA 7/21/12S	19	BLK	AB	L207.19R	:P24\FLALSUM.MET	1000	1	1	0	122020028A	02099
20	LCSA 7/21/12S	20	LCS	AB	L207.20R	:P24\FLALSUM.MET	1000	1	1	0	122020028A	02099
21	LCSDA 7/21/12S	21	LCSD	AB	L207.21R	:P24\FLALSUM.MET	1000	1	1	0	122020028A	02099
22	6726153S	22	T	AB	L207.22R	:P24\FLALSUM.MET	974	1	1	0	122020028A	02099
23	6726155S	23	T	AB	L207.23R	:P24\FLALSUM.MET	1006	1	1	0	122020028A	02099
24	6726156S	24	T	AB	L207.24R	:P24\FLALSUM.MET	1003	1	1	0	122020028A	02099
25	6726157S	25	T	AB	L207.25R	:P24\FLALSUM.MET	988	1	1	0	122020028A	02099
26	6726152S	26	T	AB	L207.26R	:P24\FLALSUM.MET	957	1	1	0	122020028A	02099
27	6726154S	27	T	AB	L207.27R	:P24\FLALSUM.MET	1031	1	1	0	122020028A	02099
28	6726150S	28	T	AB	L207.28R	:P24\FLALSUM.MET	967	1	1	0	122020028A	02099
29	FLA_31232C	29	CCAL	AD	L207.29R	CP24\FLALSTD.MET	1	1	1	0	1220699999	
30	6726151S	30	T	AB	L207.30R	:P24\FLALSUM.MET	1014	1	1	0	122020028A	02099
31	FLA_41232C	31	CCAL	XZ	L207.31R	CP24\FLALSTD.MET	1	1	1	0	1220699999	

Set-up by: _____ Date: 7/26/12

7/26/2012

AKF94 0179

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24\L208.seq

Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Number of Entries: 41

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L208.01R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	
2	CONDITIONER	2	MISC	AA	L208.02R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	
3	CARTX1232D	3	CCAL	QG	L208.03R	P24\AKDLSUM.MET	1	1	1	0	1220799999	
4	AKRTX1232C	4	CCAL	WT	L208.04R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	
5	AKFL41232B	5	CCAL	UO	L208.05R	:P24\AKDLSTD.MET	1	1	1	0	1220799999	
6	6727319DF10	6	T	AB	L208.06R	P24\AKDLSUM.MET	1053	10	1	0	122060032A	01741
7	6727320DF10	7	T	AB	L208.07R	P24\AKDLSUM.MET	1050	10	1	0	122060032A	01741
8	BLANKA 7/25/12S	8	BLK	AB	L208.08R	P24\AKDLSUM.MET	1000	1	1	0	122070012A	02244
9	LCSA 7/25/12S	9	LCS	AB	L208.09R	P24\AKDLSUM.MET	1000	1	1	0	122070012A	02244
10	LCSDA 7/25/12S	10	LCSD	AB	L208.10R	P24\AKDLSUM.MET	1000	1	1	0	122070012A	02244
11	6723653RS	11	T	AB	L208.11R	P24\AKDLSUM.MET	1045	1	1	0	122070012A	02244
12	AKFL21232B	12	CCAL	WQ	L208.12R	:P24\AKDLSTD.MET	1	1	1	0	1220799999	
13	BLANKA 7/25/12	13	BLK	AA	L208.13R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
14	LCSA 7/25/12	14	LCS	AA	L208.14R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
15	LCSDA 7/25/12	15	LCSD	AA	L208.15R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
16	6729222	16	T	AA	L208.16R	P24\AKDLSUM.MET	25.5	1	1	0	122070017A	01742
17	6729225	17	T	AA	L208.17R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
18	6729206	18	T	AA	L208.18R	P24\AKDLSUM.MET	25.3	1	1	0	122070017A	01742
19	6729206MS	19	MS	AA	L208.19R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
20	6729206MSD	20	MSD	AA	L208.20R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
21	6729209	21	T	AA	L208.21R	P24\AKDLSUM.MET	25.4	1	1	0	122070017A	01742
22	6729212	22	T	AA	L208.22R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
23	MECL2	23	MISC	AA	L208.23R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	
24	AKFL31232B	24	CCAL	ZB	L208.24R	:P24\AKDLSTD.MET	1	1	1	0	1220799999	
25	6729213	25	T	AA	L208.25R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
26	6729219	26	T	AA	L208.26R	P24\AKDLSUM.MET	25.3	1	1	0	122070017A	01742
27	6729220	27	T	AA	L208.27R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
28	6729211	28	T	AA	L208.28R	P24\AKDLSUM.MET	25.3	1	1	0	122070017A	01742
29	6729224	29	T	AA	L208.29R	P24\AKDLSUM.MET	25.4	1	1	0	122070017A	01742
30	6729223	30	T	AA	L208.30R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
31	6729215DF5	31	T	AB	L208.31R	P24\AKDLSUM.MET	25.2	5	1	0	122070017A	01742
32	6729208DF10	32	T	AB	L208.32R	P24\AKDLSUM.MET	25.3	10	1	0	122070017A	01742
33	6729218DF10	33	T	AB	L208.33R	P24\AKDLSUM.MET	25.3	10	1	0	122070017A	01742
34	6729214DF10	34	T	AB	L208.34R	P24\AKDLSUM.MET	25	10	1	0	122070017A	01742
35	6729221DF10	35	T	AB	L208.35R	P24\AKDLSUM.MET	25.4	10	1	0	122070017A	01742
36	6729216	36	T	AA	L208.36R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
37	6729217	37	T	AA	L208.37R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
38	6729207	38	T	AA	L208.38R	P24\AKDLSUM.MET	25.4	1	1	0	122070017A	01742
39	6729210	39	T	AA	L208.39R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
40	AKFL41232B	40	CCAL	UN	L208.40R	:P24\AKDLSTD.MET	1	1	1	0	1220799999	
41	AKRTX1232C	41	CCAL	WU	L208.41R	A\CP24\AKRTL.MET	1	1	1	0	1220799999	

Set-up by: Jh Date: 7/27/12

7/26/2012

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24\L209.seq
Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24
Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24
Number of Entries: 42

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L209.01R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
2	CONDITIONER	2	MISC	AA	L209.02R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
3	CONDITIONER	3	MISC	AA	L209.03R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
4	CARTX1232D	4	CCAL	QL	L209.04R	P24\AKDLSUM.MET	1	1	1	0	1220899999	
5	AKRTX1232C	5	CCAL	WV	L209.05R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
6	AKFL31232B	6	CCAL	ZE	L209.06R	:P24\AKDLSTD.MET	1	1	1	0	1220899999	
7	BLANKA 7/25/12S	7	BLK	AB	L209.07R	P24\AKDLSUM.MET	1000	1	1	0	122060033A	02244
8	LCSA 7/25/12S	8	LCS	AB	L209.08R	P24\AKDLSUM.MET	1000	1	1	0	122060033A	02244
9	LCSDA 7/25/12S	9	LCSD	AB	L209.09R	P24\AKDLSUM.MET	1000	1	1	0	122060033A	02244
10	6727319S DF10	10	T	AC	L209.10R	P24\AKDLSUM.MET	1053	10	1	0	122060033A	02244
11	6727320S DF10	11	T	AC	L209.11R	P24\AKDLSUM.MET	1050	10	1	0	122060033A	02244
12	MECL2	12	MISC	AA	L209.12R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
13	LCSDA 7/25/12 RI	13	LCSD	AA	L209.13R	P24\AKDLSUM.MET	25	1	1	0	122070017A	01742
14	6729209 RI	14	T	AA	L209.14R	P24\AKDLSUM.MET	25.4	1	1	0	122070017A	01742
15	6729220 RI	15	T	AA	L209.15R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
16	6729224 RI	16	T	AA	L209.16R	P24\AKDLSUM.MET	25.4	1	1	0	122070017A	01742
17	6729216 RI	17	T	AA	L209.17R	P24\AKDLSUM.MET	25.2	1	1	0	122070017A	01742
18	6729217 RI	18	T	AA	L209.18R	P24\AKDLSUM.MET	25.1	1	1	0	122070017A	01742
19	6729206DF50	19	T	AB	L209.19R	P24\AKDLSUM.MET	25.3	50	1	0	122070017A	01742
20	6729206MSDF50	20	MS	AB	L209.20R	P24\AKDLSUM.MET	25.1	50	1	0	122070017A	01742
21	6729206MSDDF50	21	MSD	AB	L209.21R	P24\AKDLSUM.MET	25	50	1	0	122070017A	01742
22	MECL2	22	MISC	AA	L209.22R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
23	AKFL41232B	23	CCAL	UP	L209.23R	:P24\AKDLSTD.MET	1	1	1	0	1220899999	
24	6729215 RI DF5	24	T	AB	L209.24R	P24\AKDLSUM.MET	25.2	5	1	0	122070017A	01742
25	6729212DF5	25	T	AB	L209.25R	P24\AKDLSUM.MET	25.2	5	1	0	122070017A	01742
26	6729213DF5	26	T	AB	L209.26R	P24\AKDLSUM.MET	25	5	1	0	122070017A	01742
27	6729219DF5	27	T	AB	L209.27R	P24\AKDLSUM.MET	25.3	5	1	0	122070017A	01742
28	6729223DF5	28	T	AB	L209.28R	P24\AKDLSUM.MET	25.2	5	1	0	122070017A	01742
29	6729221DF5	29	T	AC	L209.29R	P24\AKDLSUM.MET	25.4	5	1	0	122070017A	01742
30	6729207DF5	30	T	AB	L209.30R	P24\AKDLSUM.MET	25.4	5	1	0	122070017A	01742
31	6729211DF10	31	T	AB	L209.31R	P24\AKDLSUM.MET	25.3	10	1	0	122070017A	01742
32	6729210DF20	32	T	AB	L209.32R	P24\AKDLSUM.MET	25.1	20	1	0	122070017A	01742
33	6729208 RI DF10	33	T	AB	L209.33R	P24\AKDLSUM.MET	25.3	10	1	0	122070017A	01742
34	6729218 RI DF10	34	T	AB	L209.34R	P24\AKDLSUM.MET	25.3	10	1	0	122070017A	01742
35	6729214 RI DF10	35	T	AB	L209.35R	P24\AKDLSUM.MET	25	10	1	0	122070017A	01742
36	MECL2	36	MISC	AA	L209.36R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
37	AKFL21232B	37	CCAL	WU	L209.37R	:P24\AKDLSTD.MET	1	1	1	0	1220899999	
38	AKRTX1232C	38	CCAL	WW	L209.38R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
39	CONDITIONER	39	MISC	AA	L209.39R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
40	CONDITIONER	40	MISC	AA	L209.40R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
41	CONDITIONER	41	MISC	AA	L209.41R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	
42	CONDITIONER	42	MISC	AA	L209.42R	A\CP24\AKRTL.MET	1	1	1	0	1220899999	

Set-up by: jh Date: 7/28/12

7/28/2012

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CHROM PERFECT SEQUENCE FILE

Sequence File: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24\L210.seq

Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24

Number of Entries: 25

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L210.01R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
2	CONDITIONER	2	MISC	AA	L210.02R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
3	AKRTX1232C	3	CCAL	XA	L210.03R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
4	AKFL41232B	4	CCAL	US	L210.04R	:P24\AKDLSTD.MET	1	1	1	0	1220999999	
5	BLANKA 7/27/12	5	BLK	AA	L210.05R	P24\AKDLSUM.MET	1000	1	1	0	122090011A	01741
6	LCSA 7/27/12	6	LCS	AA	L210.06R	P24\AKDLSUM.MET	1000	1	1	0	122090011A	01741
7	LCSDA 7/27/12	7	LCSD	AA	L210.07R	P24\AKDLSUM.MET	1000	1	1	0	122090011A	01741
8	6729226R	8	T	AA	L210.08R	P24\AKDLSUM.MET	1054	1	1	0	122090011A	01741
9	6723653R	9	T	AA	L210.09R	P24\AKDLSUM.MET	1050	1	1	0	122090011A	01741
10	6727319RDF10	10	T	AB	L210.10R	P24\AKDLSUM.MET	1042	10	1	0	122090011A	01741
11	AKFL21232B	11	CCAL	WW	L210.11R	:P24\AKDLSTD.MET	1	1	1	0	1220999999	
12	AKRTX1232C	12	CCAL	XB	L210.12R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
13	FLA_31232C	13	CCAL	AH	L210.13R	:P24\FLALSTD.MET	1	1	1	0	1220999999	
14	BLANKA 7/27/12S	14	BLK	AB	L210.14R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
15	LCSA 7/27/12S	15	LCS	AB	L210.15R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
16	6730559S	16	T	AB	L210.16R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
17	6730558S	17	T	AB	L210.17R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
18	6730558MSS	18	MS	AB	L210.18R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
19	6730558MSDS	19	MSD	AB	L210.19R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
20	6733713S	20	T	AB	L210.20R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
21	6733710S	21	T	AB	L210.21R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
22	6733711S	22	T	AB	L210.22R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
23	6733712S	23	T	AB	L210.23R	:P24\FLALSUM.MET	25	1	1	0	122090006A	02100
24	MECL2	24	MISC	AA	L210.24R	A\CP24\AKRTL.MET	1	1	1	0	1220999999	
25	FLA_41232C	25	CCAL	YE	L210.25R	:P24\FLALSTD.MET	1	1	1	0	1220999999	

Set-up by: JH Date: 7/30/12

7/28/2012

Lancaster Laboratories

CHROM PERFECT SEQUENCE FILE

Sequence File: \\Uslan-chromperf\active-data\CP24\L214.seq
Chromatography Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24
Method Directory: \\USLAN-CHROMPERF\ACTIVE-DATA\CP24
Number of Entries: 46

	Samplename	VP	Code	ID	FileName	Method	Samp Amt	DF	Int Std	C	Batch Number	Analysis
1	CONDITIONER	1	MISC	AA	L214.01R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
2	CARTX1232D	2	CCAL	QW	L214.02R	P24\AKDLSUM.MET	1	1	1	0	1221399999	
3	AKRTX1232C	3	CCAL	XH	L214.03R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
4	AKFL21232C	4	CCAL	XC	L214.04R	:P24\AKDLSTD.MET	1	1	1	0	1221399999	
5	6735784 RI DF10	5	T	AB	L214.05R	P24\AKDLSUM.MET	25	10	1	0	122100008A	01742
6	6729206R RI DF50	6	T	AB	L214.06R	P24\AKDLSUM.MET	25.2	50	1	0	122120025A	01742
7	6729210R RI DF20	7	T	AB	L214.07R	P24\AKDLSUM.MET	25.4	20	1	0	122120025A	01742
8	6729208R RI DF10	8	T	AB	L214.08R	P24\AKDLSUM.MET	25.3	10	1	0	122120025A	01742
9	6729211R RI DF10	9	T	AB	L214.09R	P24\AKDLSUM.MET	25.2	10	1	0	122120025A	01742
10	6729214R RI DF10	10	T	AB	L214.10R	P24\AKDLSUM.MET	25.3	10	1	0	122120025A	01742
11	6729218R RI DF10	11	T	AB	L214.11R	P24\AKDLSUM.MET	25.3	10	1	0	122120025A	01742
12	6729207R RI DF5	12	T	AB	L214.12R	P24\AKDLSUM.MET	25.4	5	1	0	122120025A	01742
13	6729207RMS RI DF5	13	MS	AB	L214.13R	P24\AKDLSUM.MET	25.2	5	1	0	122120025A	01742
14	6729207RMSD RI DF5	14	MSD	AB	L214.14R	P24\AKDLSUM.MET	25.4	5	1	0	122120025A	01742
15	6729212R RI DF5	15	T	AB	L214.15R	P24\AKDLSUM.MET	25.1	5	1	0	122120025A	01742
16	6729213R RI DF5	16	T	AB	L214.16R	P24\AKDLSUM.MET	25.5	5	1	0	122120025A	01742
17	6729215R RI DF5	17	T	AB	L214.17R	P24\AKDLSUM.MET	25.1	5	1	0	122120025A	01742
18	6729219R RI DF5	18	T	AB	L214.18R	P24\AKDLSUM.MET	25.1	5	1	0	122120025A	01742
19	6729221R RI DF5	19	T	AB	L214.19R	P24\AKDLSUM.MET	25.3	5	1	0	122120025A	01742
20	6729223R RI DF5	20	T	AB	L214.20R	P24\AKDLSUM.MET	25.4	5	1	0	122120025A	01742
21	MECL2	21	MISC	AA	L214.21R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
22	AKFL31232C	22	CCAL	ZO	L214.22R	:P24\AKDLSTD.MET	1	1	1	0	1221399999	
23	BLANKA 7/31/12S	23	BLK	AB	L214.23R	P24\AKDLSUM.MET	1000	1	1	0	122120036A	02244
24	LCSA 7/31/12S	24	LCS	AB	L214.24R	P24\AKDLSUM.MET	1000	1	1	0	122120036A	02244
25	LCSDA 7/31/12S	25	LCSD	AB	L214.25R	P24\AKDLSUM.MET	1000	1	1	0	122120036A	02244
26	6723653RS	26	T	AB	L214.26R	P24\AKDLSUM.MET	1048	1	1	0	122120036A	02244
27	6727319RS DF10	27	T	AC	L214.27R	P24\AKDLSUM.MET	1053	10	1	0	122120036A	02244
28	6736012S	28	T	AB	L214.28R	P24\AKDLSUM.MET	1030	1	1	0	122120036A	02244
29	6736013S	29	T	AB	L214.29R	P24\AKDLSUM.MET	1045	1	1	0	122120036A	02244
30	6736015S	31	T	AB	L214.30R	P24\AKDLSUM.MET	1000	1	1	0	122120036A	02244
31	6736019S	33	T	AB	L214.31R	P24\AKDLSUM.MET	993	1	1	0	122120036A	02244
32	6736020S	34	T	AB	L214.32R	P24\AKDLSUM.MET	1002	1	1	0	122120036A	02244
33	6736022S	36	T	AB	L214.33R	P24\AKDLSUM.MET	1054	1	1	0	122120036A	02244
34	6736023S	37	T	AB	L214.34R	P24\AKDLSUM.MET	1005	1	1	0	122120036A	02244
35	6736024S	38	T	AB	L214.35R	P24\AKDLSUM.MET	1057	1	1	0	122120036A	02244
36	6736018S DF5	39	T	AC	L214.36R	P24\AKDLSUM.MET	1017	5	1	0	122120036A	02244
37	6736014S DF10	40	T	AC	L214.37R	P24\AKDLSUM.MET	1028	10	1	0	122120036A	02244
38	6736021S DF10	41	T	AC	L214.38R	P24\AKDLSUM.MET	905	10	1	0	122120036A	02244
39	MECL2	42	MISC	AA	L214.39R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
40	AKFL41232C	43	CCAL	VA	L214.40R	:P24\AKDLSTD.MET	1	1	1	0	1221399999	
41	AKRTX1232C	44	CCAL	XI	L214.41R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
42	CONDITIONER	45	MISC	AA	L214.42R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
43	CONDITIONER	46	MISC	AA	L214.43R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
44	CONDITIONER	47	MISC	AA	L214.44R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
45	CONDITIONER	48	MISC	AA	L214.45R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	
46	CONDITIONER	49	MISC	AA	L214.46R	A\CP24\AKRTL.MET	1	1	1	0	1221399999	

Set-up by: ph Date: 8/6/12

8/1/2012

AKF94 0183

Sample: AKFL41232B UKAKFL4UK CCAL 1220699999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/25/2012 10:34:27
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
17	2.71	C10	0.00	455954.1
47	6.18	Capric Acid	27.45	387819.5
78	9.92	o-Terphenyl SURR	50.10	1329507
91	12.27	C25	0.00	5066.691

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	77.557	36412490.0
2	9.87	9.97	50.103	1329507.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1507.993

% Level 2 DRO Difference = 276.9982

% Level 3 DRO Difference = 88.49908

% Level 4 DRO Difference = -5.75046

Not Used
See Reintegration

FILES:

Area File: L207.0003.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/25/2012 10:54:28 PM
File reported on: 7/25/2012 at 10:54:30 PM

Sample: AKFL41232B UKAKFL4UK CCAL 1220699999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/25/2012 10:34:27 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
17	2.71	C10	0.00	463606.9
47	6.18	Capric Acid	28.01	395671.1
78	9.92	o-Terphenyl SURR	50.73	1346042
91	12.27	C25	0.00	30409.61

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	78.736	37515600.0 M
2	9.87	9.97	50.726	1346042.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1554.698

% Level 2 DRO Difference = 288.6744

% Level 3 DRO Difference = 94.33719

% Level 4 DRO Difference = -2.831405 M

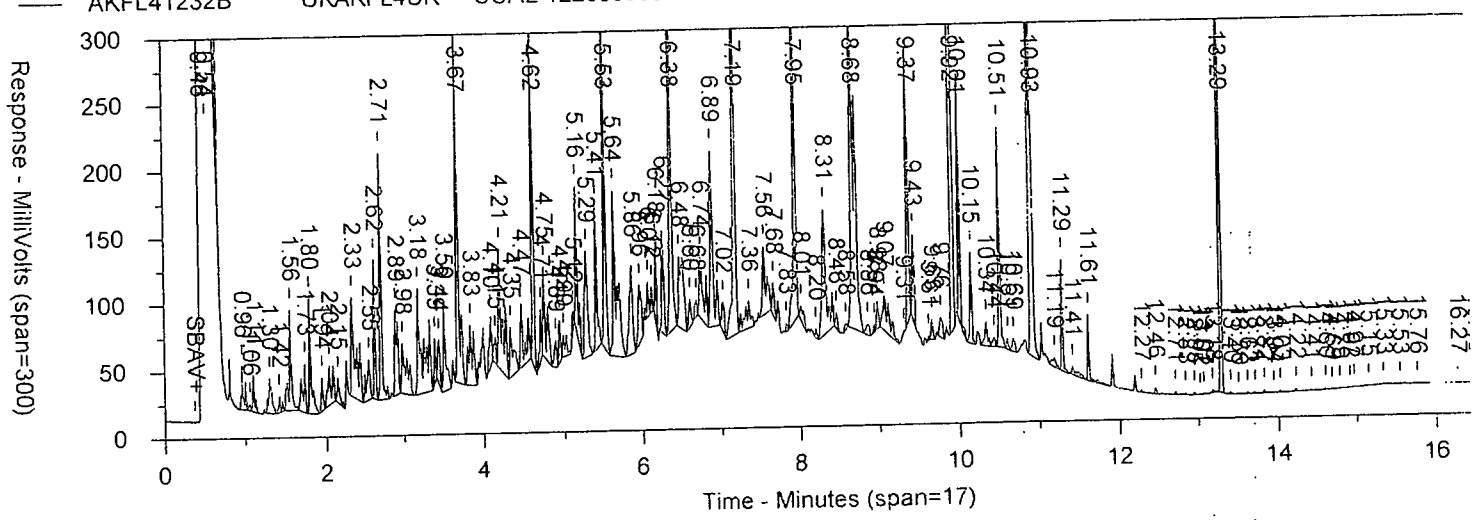
M = Manually Integrated
Analyst [illegible] 7/26/12
Approved by [illegible] 7-30-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L207.0003.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/26/2012 6:24:57 PM
File reported on: 7/26/2012 at 6:24:58 PM

Chrom Perfect Chromatogram Report

Sample: AKFL41232B UKAKFL4UK CCAL 1220699999 AK 102/103 SURROGATE
File: L207.0003.RAW



Replot

Sample: AKFL41232B UKAKFL4UK CCAL 1220699999 AK 102/103 SURROGATE

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

Injected on: 7/25/2012 10:34:27 PM
GC Column:

Dilution Factor: 1

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
17	2.71	C10	0.00	290794.3
47	6.18	Capric Acid	6.11	86257.59
78	9.92	o-Terphenyl SURR	37.19	986903.2
91	12.27	C25	0.00	5066.691

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	37.192	986903.2

o-Terphenyl Level 2 % Difference = 271.9199 %

o-Terphenyl Level 3 % Difference = 132.4499 %

o-Terphenyl Level 4 % Difference = -7.020032 %

jh 7/26/12

FILES:
Area File: L207.0003.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/25/2012 10:54:28 PM
File reported on: 7/25/2012 at 10:54:36 PM

Printed on 7/25/2012 10:54:36 PM

Sample: AKFL21232B WLAKFL2WL CCAL 1220699999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/26/2012 4:46:04 A
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
15	2.71	C10	0.00	113404.9
40	6.18	Capric Acid	6.23	88059.37
68	9.91	o-Terphenyl SURR	11.56	306708.3
83	12.27	C25	0.00	1648.434

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	17.792	7798510.0
2	9.87	9.97	11.558	306708.3

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 322.0246

% Level 2 DRO Difference = -19.49386

% Level 3 DRO Difference = -59.74693

% Level 4 DRO Difference = -79.87347

Not Used
See Reintegration

FILES:

Area File: L207.0016.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/26/2012 5:06:05 AM
File reported on: 7/26/2012 at 5:06:09 AM

Sample: AKFL21232B WLAKFL2WL CCAL 1220699999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/26/2012 4:46:04 AM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
15	2.71	C10	0.00	129600.1
40	6.18	Capric Acid	7.41	104675.3
68	9.91	o-Terphenyl SURR	12.67	336154.6
83	12.27	C25	0.00	3086.414

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	20.078	9883635.0 M
2	9.87	9.97	12.668	336154.6

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 410.385

% Level 2 DRO Difference = 2.596247

% Level 3 DRO Difference = -48.70188

% Level 4 DRO Difference = -74.35094

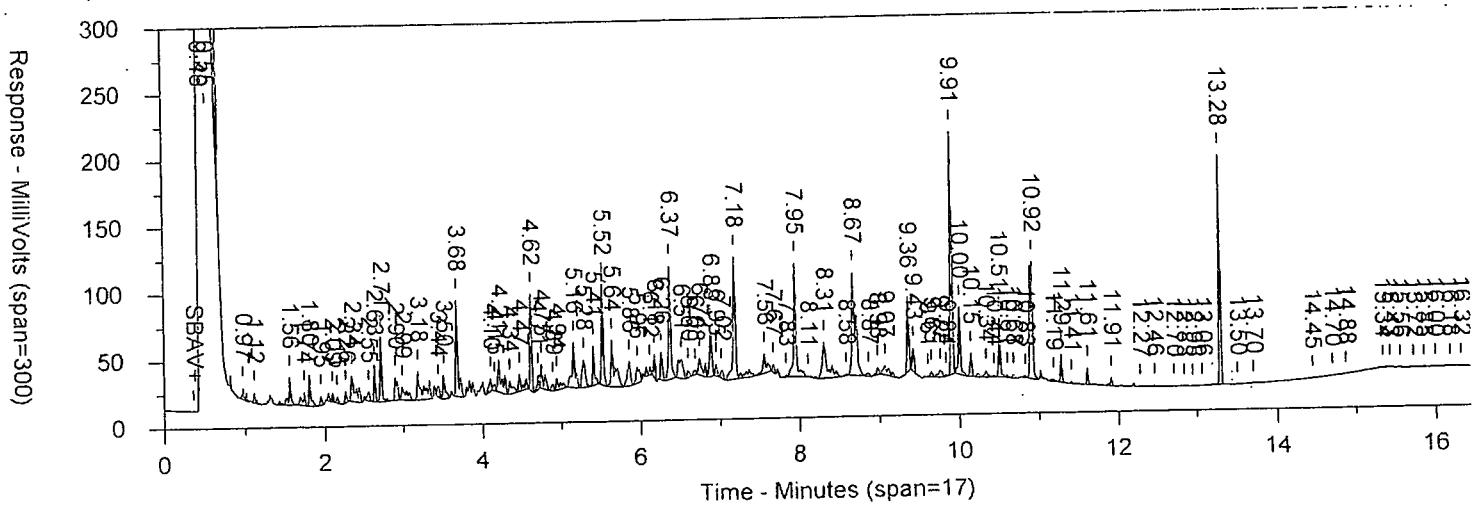
M = Manually Integrated
Analyst JLL 7/26/12
Approved by DaCJ 7/30/12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L207.0016.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/26/2012 6:29:26 PM
File reported on: 7/26/2012 at 6:29:28 PM

Chrom Perfect Chromatogram Report

Sample: AKFL21232B WLAKFL2WL CCAL 1220699999 AK 102/103 SURROGATE
File: L207.0016.RAW
— AKFL21232B WLAKFL2WL CCAL 1220699999



Replot

Sample: AKFL21232B WLAKFL2WL CCAL 1220699999 SURROGATE

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

Injected on: 7/26/2012 4:46:04 AM
GC Column:

Dilution Factor: 1

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
15	2.71	C10	0.00	78184.9
40	6.18	Capric Acid	1.73	24378.06
68	9.91	o-Terphenyl SURR	10.04	266352.6
83	12.27	C25	0.00	1648.434

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	10.038	266352.6

o-Terphenyl Level 2 % Difference = 0.3764391 %

o-Terphenyl Level 3 % Difference = -37.26473 %

o-Terphenyl Level 4 % Difference = -74.90589 %

JL 7/26/12

FILES:
Area File: L207.0016.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/26/2012 5:06:05 AM
File reported on: 7/26/2012 at 5:06:15 AM

Printed on 7/26/2012 5:06:16 AM

Sample: CARTX1232D QGCARTXQG CCAL 1220799999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1
Analyst: 2268

Injected on: 7/26/2012 9:57:48 PM
GC Column: ZB5 30m X 0.32mm X 0.25un

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
8	6.21	Capric Acid	36222.16	511675.1

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	36.222	526438.6
2	9.87	9.97	0.000	0.0

********** RESULTS TABLE **********

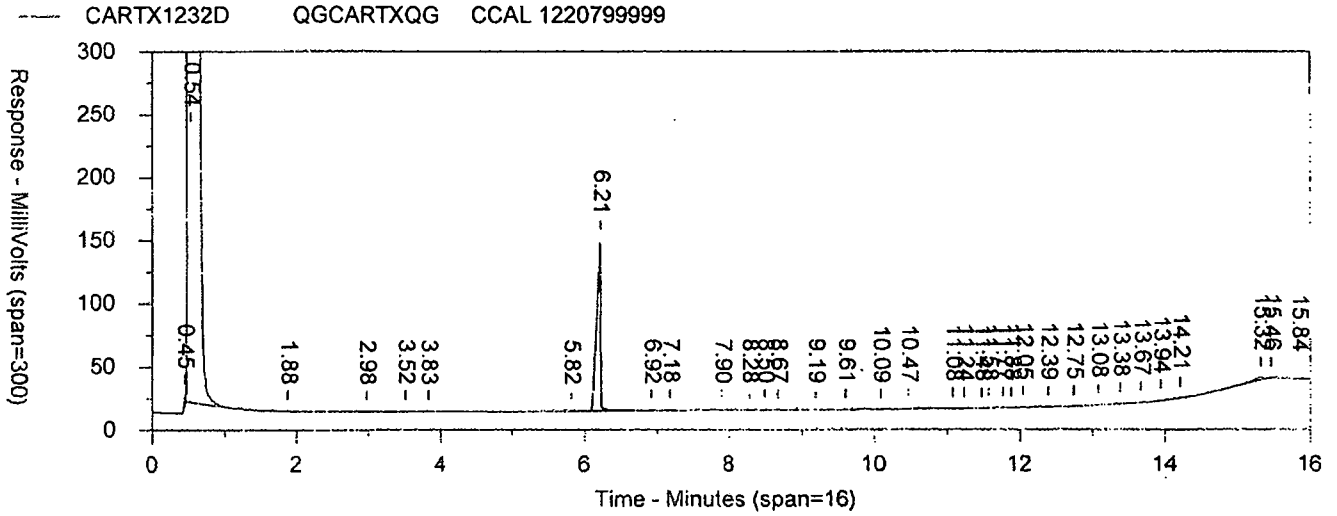
C10-<C25 DRO AREA = 526438.6
C10-<C25 AMT = 22.62823

FILES:

Area File: L208.0003.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/26/2012 10:17:49 PM
File reported on: 7/26/2012 at 10:17:55 PM

Chrom Perfect Chromatogram Report

Replot: CARTX1232D QGCARTXQG CCAL 1220799999 AK 102/103
File: L208.0003.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1
Analyst: 2268

Injected on: 7/26/2012 9:57:48 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
8	6.21	Capric Acid	36.22	511675.1

O-TERPHENYL % RECOVERY = 0 %

Capric Acid % recovery = 7.332422 %

FILES:

Area File: L208.0003.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/26/2012 10:17:49 PM
File reported on: 7/26/2012 at 10:18:01 PM

Sample: AKFL41232B UOAKFL4UO CCAL 1220799999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/26/2012 10:54:48
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	2.70	C10	0.00	381406.6
45	6.18	Capric Acid	23.61	333512.6
72	9.91	o-Terphenyl SURR	43.11	1143987
86	12.19	C25	0.00	12985.41

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	66.722	29554980.0
2	9.87	9.97	43.112	1143987.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1221.207

% Level 2 DRO Difference = 205.3016

% Level 3 DRO Difference = 52.65082

% Level 4 DRO Difference = -23.67459

Not Used
See Reintegration

FILES:

Area File: L208.0005.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/26/2012 11:14:48 PM
File reported on: 7/26/2012 at 11:14:51 PM

Sample: AKFL41232B UOAKFL4UO CCAL 1220799999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/26/2012 10:54:48 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	2.70	C10	0.00	402390.6
45	6.18	Capric Acid	25.20	355909.5
72	9.91	o-Terphenyl SURR	44.87	1190750
86	12.19	C25	0.00	25833.4

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	70.069	32487840.0 M
2	9.87	9.97	44.874	1190750.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1345.261

% Level 2 DRO Difference = 236.3154

% Level 3 DRO Difference = 68.15768

% Level 4 DRO Difference = -15.92116

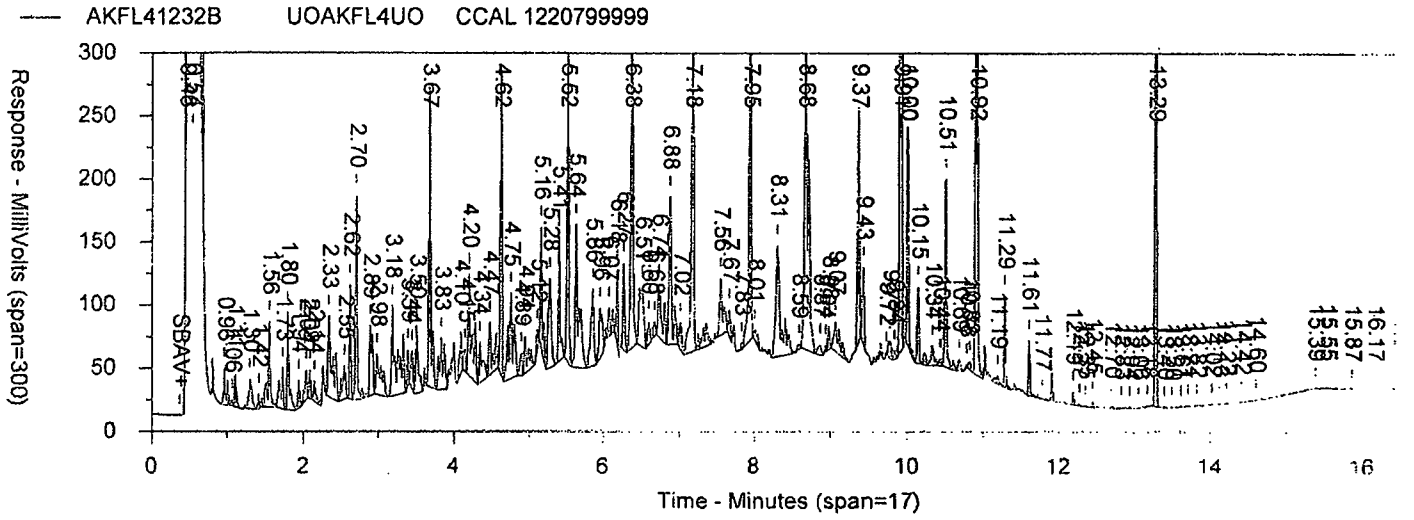
M = Manually Integrated
Analyst JK 7/27/12
Approved by [illegible] 7-30-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L208.0005.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/27/2012 5:10:30 PM
File reported on: 7/27/2012 at 5:10:32 PM

Chrom Perfect Chromatogram Report

Sample: AKFL41232B UOAKFL4UO CCAL 1220799999 AK 102/103 SURROGATE
File: L208.0005.RAW



Sample: AKFL41232B UOAKFL4UO CCAL 1220799999 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/26/2012 10:54:48 PM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
18	2.70	C10	0.00	254339.6
45	6.18	Capric Acid	5.69	80437.42
72	9.91	o-Terphenyl SURR	32.85	871737.6
86	12.19	C25	0.00	12985.41

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	32.852	871737.6

o-Terphenyl Level 2 % Difference = 228.5191 %

o-Terphenyl Level 3 % Difference = 105.3244 %

o-Terphenyl Level 4 % Difference = -17.87022 %

sh 7/27/12

FILES:
Area File: L208.0005.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/26/2012 11:14:48 PM
File reported on: 7/26/2012 at 11:14:57 PM

Sample: AKFL21232B WQAKFL2WQ CCAL 1220799999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/27/2012 2:14:17 AM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	2.70	C10	0.00	109073.4
46	6.18	Capric Acid	6.91	97561.52
76	9.91	o-Terphenyl SURR	10.05	266579.5
93	12.19	C25	0.00	3609.178

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	16.953	7990828.0
2	9.87	9.97	10.046	266579.5

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 332.016

% Level 2 DRO Difference = -16.99601

% Level 3 DRO Difference = -58.498

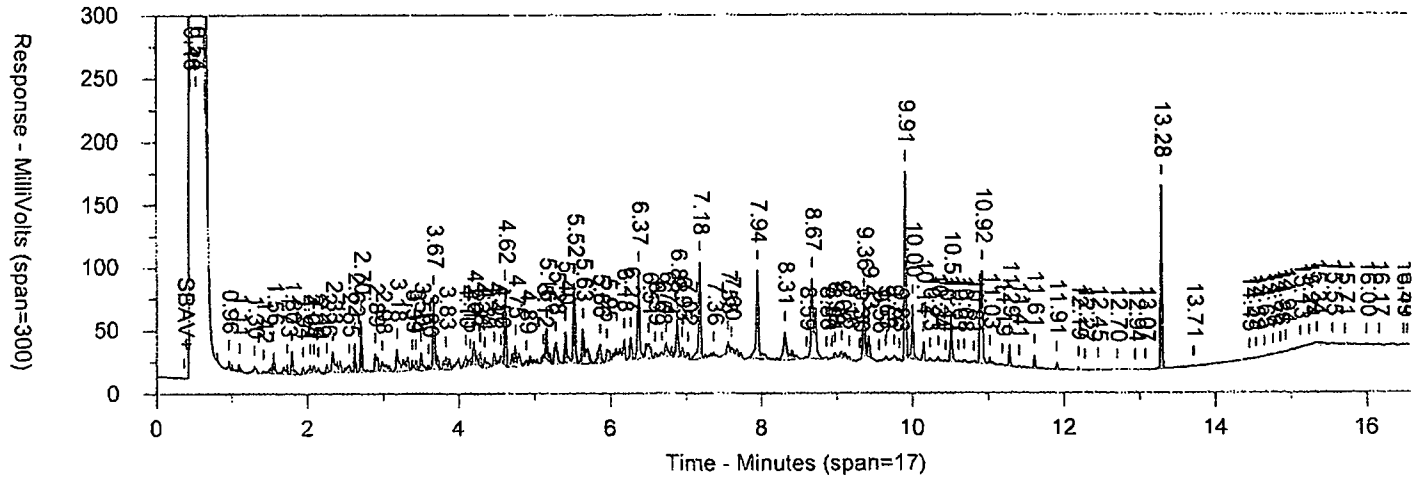
% Level 4 DRO Difference = -79.249

FILES:

Area File: L208.0012.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/27/2012 6:43:26 AM
File reported on: 7/27/2012 at 5:03:28 PM

Chrom Perfect Chromatogram Report

Sample: AKFL21232B WQAKFL2WQ CCAL 1220799999 AK 102/103 SURROGATE
File: L208.0012.RAW
—— AKFL21232B WQAKFL2WQ CCAL 1220799999



Sample: AKFL21232B WQAKFL2WQ CCAL 1220799999 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/27/2012 2:14:17 AM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
18	2.70	C10	0.00	64134.89
46	6.18	Capric Acid	1.53	21554.7
76	9.91	o-Terphenyl SURR	8.26	219087.5
93	12.19	C25	0.00	3294.274

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	8.256	219087.5

o-Terphenyl Level 2 % Difference = -17.43569 %

o-Terphenyl Level 3 % Difference = -48.39731 %

o-Terphenyl Level 4 % Difference = -79.35892 %

7/27/12

FILES:
Area File: L208.0012.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/27/2012 6:43:26 AM
File reported on: 7/27/2012 at 5:04:42 PM

Chrom Perfect Chromatogram Report

Sample: CARTX1232D QLCARTXQL CCAL 1220899999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1
Analyst: 2268

Injected on: 7/27/2012 8:44:07 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
4	2.74	C10	0.00	683.3364
13	6.23	Capric Acid	43214.21	610444.8
30	9.97	o-Terphenyl SURR	95.76	2541.149
46	12.18	C25	0.00	1039.582

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	43.310	790577.6
2	9.87	9.97	0.096	2541.1

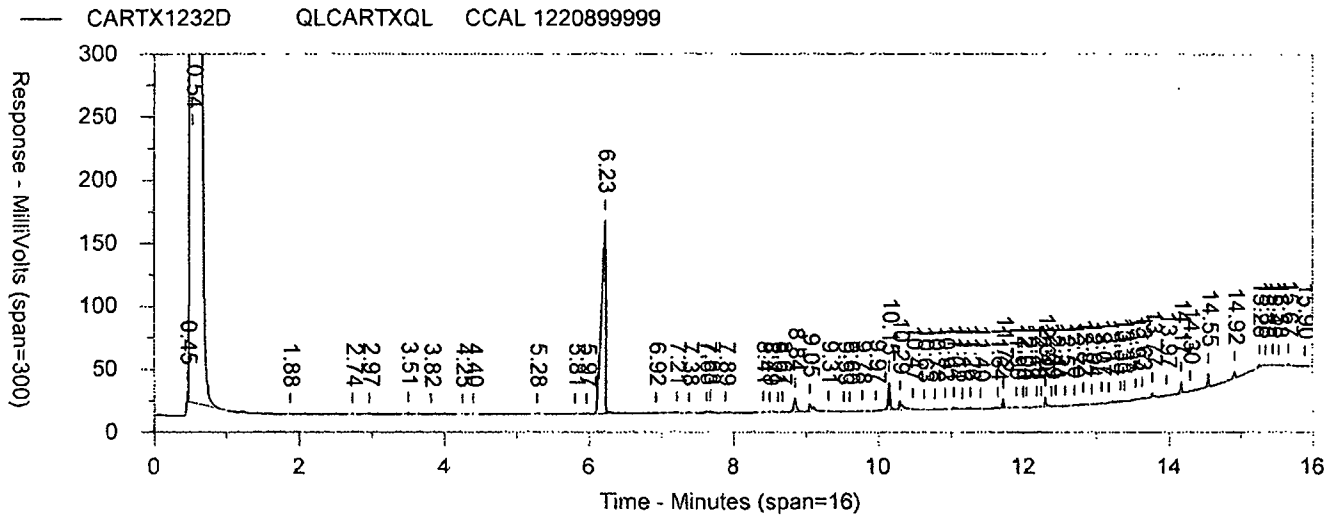
********** RESULTS TABLE **********

C10-<C25 DRO AREA = 790577.6
C10-<C25 AMT = 33.87264

FILES:

Area File: L209.0004.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/27/2012 9:04:07 PM
File reported on: 7/28/2012 at 12:51:14 PM

Replot: CARTX1232D QLCARTXQL CCAL 1220899999 AK 102/103
File: L209.0004.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1
Analyst: 2268

Injected on: 7/27/2012 8:44:07 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
4	2.74	C10	0.00	683.3364
13	6.23	Capric Acid	43.21	610444.8
30	9.97	o-Terphenyl SURR	0.10	2541.149
46	12.18	C25	0.00	1039.582

O-TERPHENYL % RECOVERY = 0.7980383 %

Capric Acid % recovery = 8.747815 %

FILES:

Area File: L209.0004.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/27/2012 9:04:07 PM
File reported on: 7/28/2012 at 12:52:27 PM

Sample: AKFL31232B ZEAKFL3ZE CCAL 1220899999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/27/2012 9:41:28 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	2.70	C10	0.00	182530.9
48	6.17	Capric Acid	13.09	184890.2
76	9.91	o-Terphenyl SURR	22.25	590415.9
95	12.19	C25	0.00	8688.54

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	35.339	14358820.0
2	9.87	9.97	22.250	590415.9

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 591.8155

% Level 2 DRO Difference = 47.95387

% Level 3 DRO Difference = -26.02307

% Level 4 DRO Difference = -63.01153

Not Used
See Reintegration

FILES:

Area File: L209.0006.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/27/2012 10:01:30 PM
File reported on: 7/28/2012 at 12:51:21 PM

Sample: AKFL31232B ZEAKFL3ZE CCAL 1220899999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/27/2012 9:41:28 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	2.70	C10	0.00	205137.8
48	6.17	Capric Acid	15.66	221160.6
76	9.91	o-Terphenyl SURR	24.34	645891.5
95	12.19	C25	0.00	13448.15

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	39.997	18293070.0 M
2	9.87	9.97	24.341	645891.5

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 758.5392

% Level 2 DRO Difference = 89.6348

% Level 3 DRO Difference = -5.1826

% Level 4 DRO Difference = -52.5913

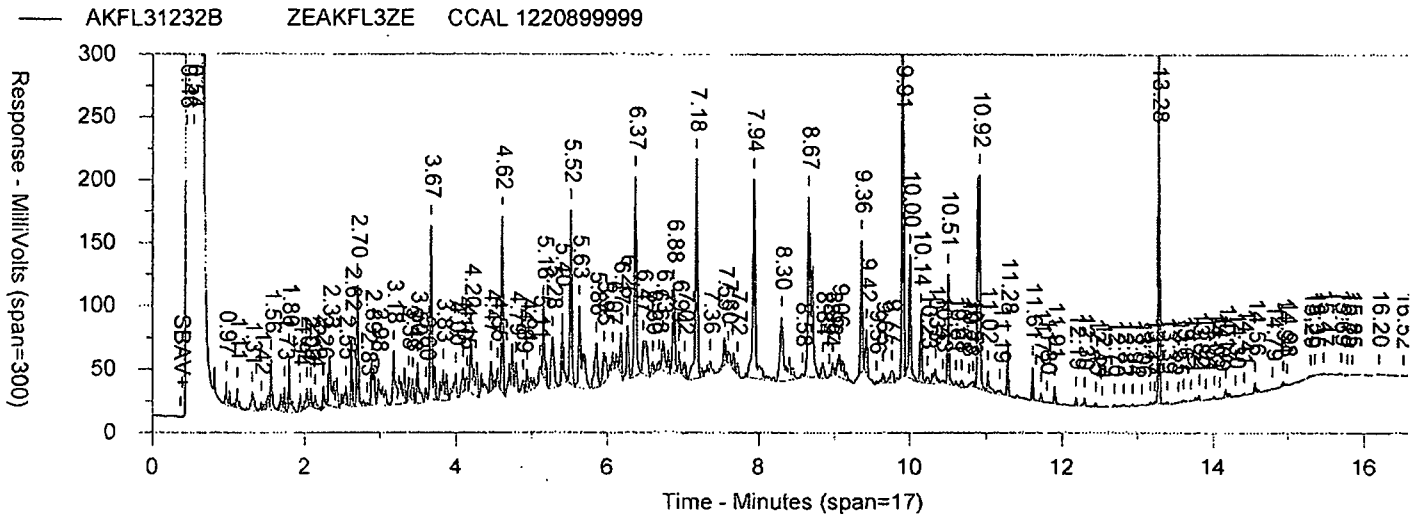
M = Manually Integrated
Analyst 7/28/12
Approved by 8-8-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L209.0006.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/28/2012 1:01:21 PM
File reported on: 7/28/2012 at 1:01:23 PM

Chrom Perfect Chromatogram Report

Sample: AKFL31232B ZEAKFL3ZE CCAL 1220899999 AK 102/103 SURROGATE
File: L209.0006.RAW



Sample: AKFL31232B ZEAKFL3ZE CCAL 1220899999 AK 102/103 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/27/2012 9:41:28 PM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
18	2.70	C10	0.00	147715.6
48	6.17	Capric Acid	3.59	50688.21
76	9.91	o-Terphenyl SURR	19.32	512793.7
95	12.19	C25	0.00	8688.54

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	19.325	512793.7

o-Terphenyl Level 2 % Difference = 93.24913 %

o-Terphenyl Level 3 % Difference = 20.78071 %

o-Terphenyl Level 4 % Difference = -51.68772 %

AR 7/28/12

FILES:
Area File: L209.0006.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/27/2012 10:01:30 PM
File reported on: 7/28/2012 at 12:52:31 PM

Sample: AKFL41232B UPAKFL4UP CCAL 1220899999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 5:45:00 AM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	327290.9
43	6.17	Capric Acid	18.08	255423.3
70	9.91	o-Terphenyl SURR	38.66	1025879
88	12.19	C25	0.00	39476.06

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	56.743	26766840.0
2	9.87	9.97	38.661	1025879.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1106.439

% Level 2 DRO Difference = 176.6097

% Level 3 DRO Difference = 38.30486

% Level 4 DRO Difference = -30.84757

Not Used
See Reintegration

FILES:

Area File: L209.0023.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/28/2012 6:05:00 AM
File reported on: 7/28/2012 at 12:51:55 PM

Sample: AKFL41232B UPAKFL4UP CCAL 1220899999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 5:45:00 AM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	354185.7
43	6.17	Capric Acid	20.03	283003.2
70	9.91	o-Terphenyl SURR	41.10	1090488
88	12.19	C25	0.00	57859.68

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	61.130	31475710.0
2	9.87	9.97	41.096	1090488.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1306.066

% Level 2 DRO Difference = 226.5166

% Level 3 DRO Difference = 63.25829

% Level 4 DRO Difference = -18.37086

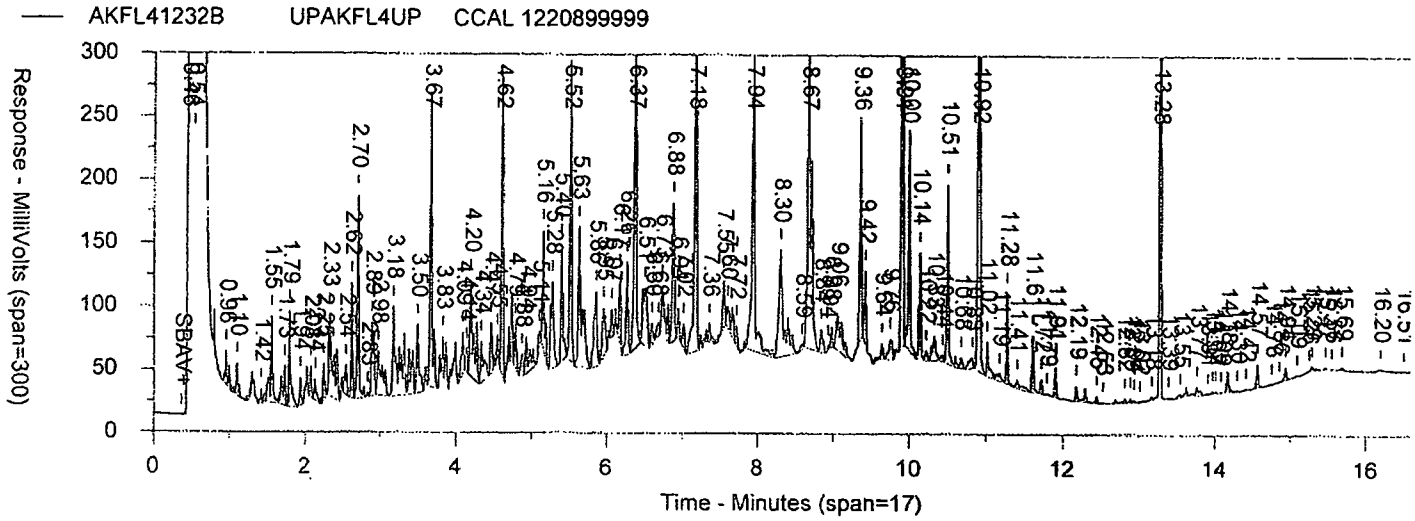
M = Manually Integrated
Analyst [illegible] 7/28/12
Approved by [illegible] 8-8-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L209.0023.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/28/2012 1:13:42 PM
File reported on: 7/28/2012 at 1:13:45 PM

Chrom Perfect Chromatogram Report

Sample: AKFL41232B UPAKFL4UP CCAL 1220899999 AK 102/103 SURROGATE
File: L209.0023.RAW



Sample: AKFL41232B UPAKFL4UP CCAL 1220899999 AK 102/103 SURROGATE Replot

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

Injected on: 7/28/2012 5:45:00 AM
GC Column:
Dilution Factor: 1

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
16	2.70	C10	0.00	252286.5
43	6.17	Capric Acid	5.97	84380.28
70	9.91	o-Terphenyl SURR	31.86	845385
88	12.19	C25	0.00	39476.06

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	31.859	845385.0

o-Terphenyl Level 2 % Difference = 218.588 %

o-Terphenyl Level 3 % Difference = 99.11749 %

o-Terphenyl Level 4 % Difference = -20.35301 %

7/28/12

FILES:
Area File: L209.0023.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/28/2012 6:05:00 AM
File reported on: 7/28/2012 at 12:53:31 PM

Sample: AKFL41232B USAKFL4US CCAL 1220999999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 5:38:12 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	438897.6
43	6.17	Capric Acid	26.56	375201.7
71	9.91	o-Terphenyl SURR	49.65	1317522
89	12.18	C25	0.00	16518.74

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	76.213	34352980.0
2	9.87	9.97	49.652	1317522.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1419.983

% Level 2 DRO Difference = 254.9956

% Level 3 DRO Difference = 77.49782

% Level 4 DRO Difference = -11.25109

Not Used
See Reintegration

FILES:

Area File: L210.0004.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/28/2012 5:58:12 PM
File reported on: 7/30/2012 at 6:34:49 PM

Sample: AKFL41232B USAKFL4US CCAL 1220999999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 5:38:12 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	463609.3
43	6.17	Capric Acid	28.36	400620
71	9.91	o-Terphenyl SURR	51.67	1371105
89	12.18	C25	0.00	28206.99

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	80.031	37781320.0 M
2	9.87	9.97	51.671	1371105.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1565.042

% Level 2 DRO Difference = 291.2605

% Level 3 DRO Difference = 95.63023

% Level 4 DRO Difference = -2.184886

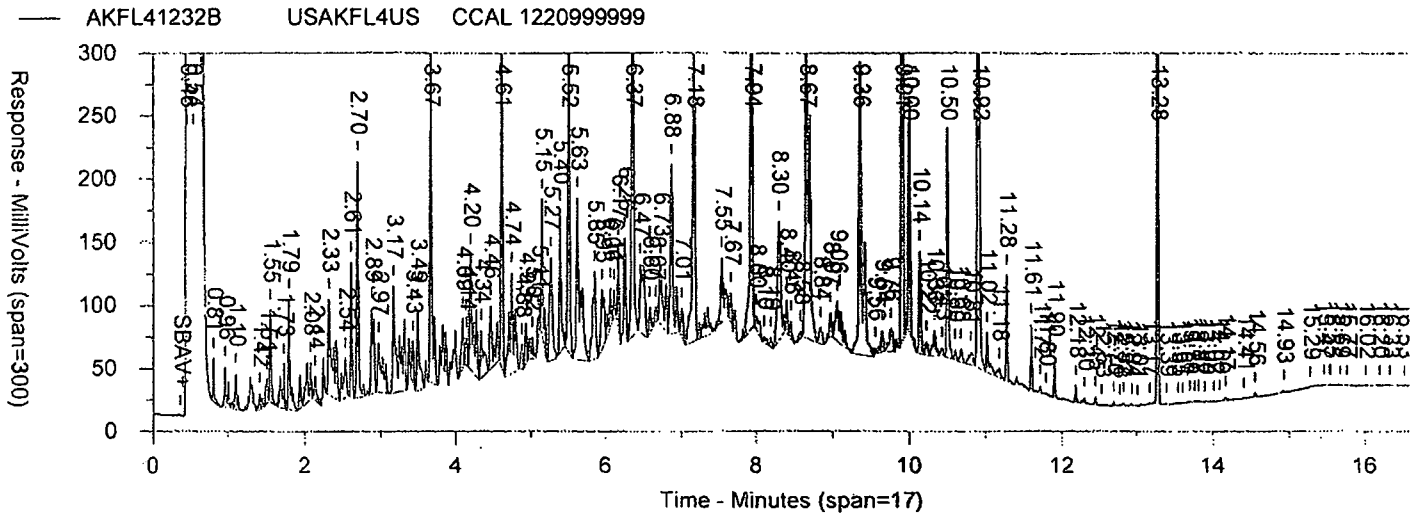
M = Manually Integrated
Analyst 7/30/12
Approved by 8-8-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L210.0004.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/30/2012 6:59:34 PM
File reported on: 7/30/2012 at 6:59:35 PM

Chrom Perfect Chromatogram Report

Sample: AKFL41232B USAKFL4US CCAL 1220999999 AK 102/103 SURROGATE
File: L210.0004.RAW



Sample: AKFL41232B USAKFL4US CCAL 1220999999 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/28/2012 5:38:12 PM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
16	2.70	C10	0.00	295926.1
43	6.17	Capric Acid	6.40	90383.55
71	9.91	o-Terphenyl SURR	38.20	1013552
89	12.18	C25	0.00	16518.74

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	38.196	1013552.0

o-Terphenyl Level 2 % Difference = 281.9627 %

o-Terphenyl Level 3 % Difference = 138.7267 %

o-Terphenyl Level 4 % Difference = -4.509318 %

7/30/12

FILES:
Area File: L210.0004.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/28/2012 5:58:12 PM
File reported on: 7/30/2012 at 6:35:34 PM

Sample: AKFL21232B WWAKFL2WW CCAL 1220999999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 8:58:12 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	93270.57
42	6.17	Capric Acid	6.12	86507.12
67	9.90	o-Terphenyl SURR	10.87	288355.8
83	12.18	C25	0.00	4821.88

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	16.991	6616382.0
2	9.87	9.97	10.867	288355.8

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 272.0013

% Level 2 DRO Difference = -31.99967

% Level 3 DRO Difference = -65.99983

% Level 4 DRO Difference = -82.99992

Not Used
See Reintegration

FILES:

Area File: L210.0011.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/28/2012 9:18:13 PM
File reported on: 7/30/2012 at 6:35:02 PM

Sample: AKFL21232B WWAKFL2WW CCAL 1220999999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 7/28/2012 8:58:12 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
16	2.70	C10	0.00	110847.1
42	6.17	Capric Acid	8.12	114698.5
67	9.90	o-Terphenyl SURR	12.49	331518.8
83	12.18	C25	0.00	7045.297

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	20.613	9516119.0
2	9.87	9.97	12.493	331518.8

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 394.7871

% Level 2 DRO Difference = -1.303214

% Level 3 DRO Difference = -50.65161

% Level 4 DRO Difference = -75.32581

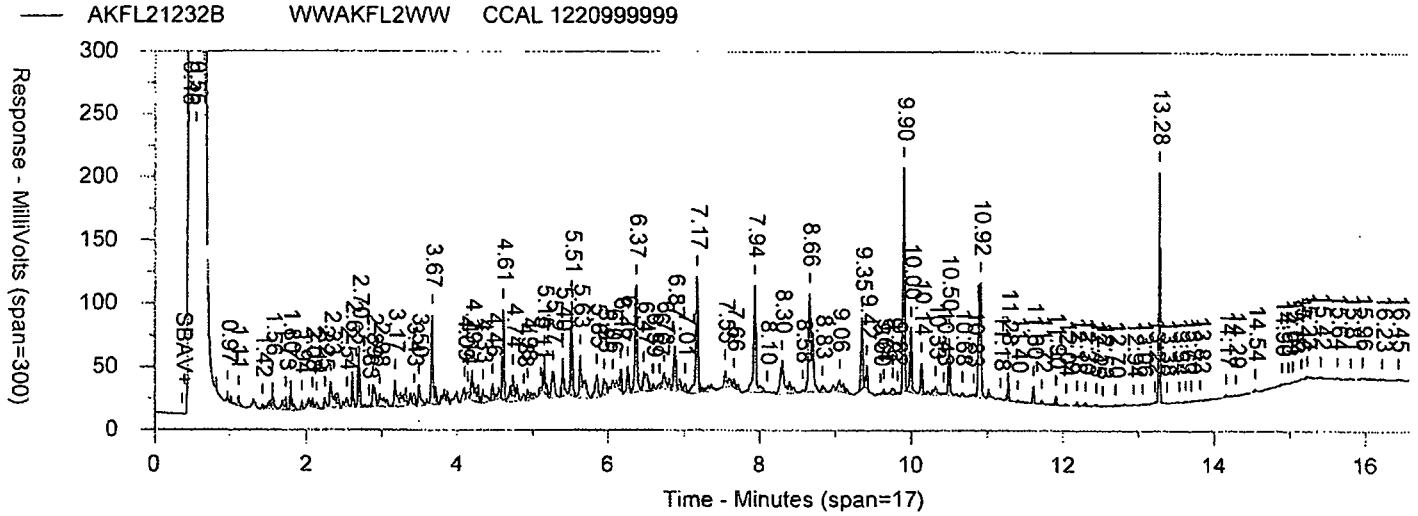
M = Manually Integrated
Analyst th 7/30/12
Approved by BoOlge 8-8-12
Circle Reason 1 2 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L210.0011.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 7/30/2012 6:58:46 PM
File reported on: 7/30/2012 at 6:58:47 PM

Chrom Perfect Chromatogram Report

Sample: AKFL21232B WWAKFL2WW CCAL 1220999999 AK 102/103 SURROGATE
File: L210.0011.RAW



Sample: AKFL21232B WWAKFL2WW CCALAK220999999 SURROGATE Replot

Instrument ID:CP24 Injected on: 7/28/2012 8:58:12 PM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
16	2.70	C10	0.00	77918.23
42	6.17	Capric Acid	1.99	28118.76
67	9.90	o-Terphenyl SURR	10.02	265914.6
83	12.18	C25	0.00	4821.88

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	10.021	265914.6

o-Terphenyl Level 2 % Difference = 0.21137 %

o-Terphenyl Level 3 % Difference = -37.36789 %

o-Terphenyl Level 4 % Difference = -74.94715 %

7/30/12

FILES:
Area File: L210.0011.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 7/28/2012 9:18:13 PM
File reported on: 7/30/2012 at 6:36:04 PM

Sample: AKFL31232C ZOAKFL3ZO CCAL 1221399999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 8/2/2012 6:13:19 AM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
15	2.69	C10	0.00	169866.9
45	6.16	Capric Acid	11.16	157665.4
75	9.90	o-Terphenyl SURR	20.59	546395.6
95	12.18	C25	0.00	18473.03

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	31.753	12033210.0
2	9.87	9.97	20.591	546395.6

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 493.7445

% Level 2 DRO Difference = 23.43612

% Level 3 DRO Difference = -38.28194

% Level 4 DRO Difference = -69.14097

Not Used
See Reintegration

FILES:

Area File: L214.0022.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 8/2/2012 5:54:56 PM
File reported on: 8/2/2012 at 6:55:35 PM

Sample: AKFL31232C ZOAKFL3ZO CCAL 1221399999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 8/2/2012 6:13:19 AM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
15	2.69	C10	0.00	196001
45	6.16	Capric Acid	14.61	206362.1
75	9.90	o-Terphenyl SURR	23.70	628919.6
95	12.18	C25	0.00	22850.27

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	38.310	17106230.0 M
2	9.87	9.97	23.701	628919.6

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 708.254

% Level 2 DRO Difference = 77.06349

% Level 3 DRO Difference = -11.46826

% Level 4 DRO Difference = -55.73413

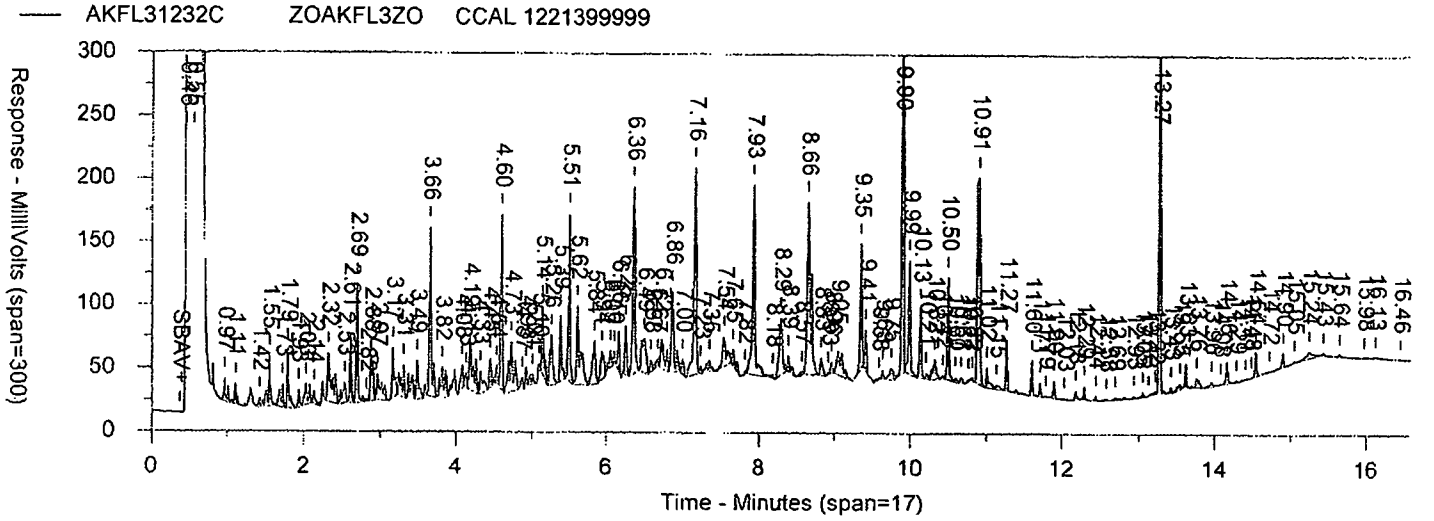
M = Manually Integrated
Analyst JH 8/2/12
Approved by DaCTU 8-8-12
Circle Reason 1 (2) 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L214.0022.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 8/2/2012 7:32:43 PM
File reported on: 8/2/2012 at 7:32:43 PM

Chrom Perfect Chromatogram Report

Sample: AKFL31232C ZOAKFL3ZO CCAL 1221399999 AK 102/103 SURROGATE
File: L214.0022.RAW



Sample: AKFL31232C ZOAKFL3ZO CCAL 1221399999 AK102/103 SURROGATE

Instrument ID:CP24 Injected on: 8/2/2012 6:13:19 AM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
15	2.69	C10	0.00	144128.1
45	6.16	Capric Acid	3.42	48264.8
75	9.90	o-Terphenyl SURR	18.65	494962.5
95	12.18	C25	0.00	12188.54

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	18.653	494962.5

o-Terphenyl Level 2 % Difference = 86.52931 %

o-Terphenyl Level 3 % Difference = 16.58082 %

o-Terphenyl Level 4 % Difference = -53.36768 %

FILES:
Area File: L214.0022.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 8/2/2012 5:54:56 PM
File reported on: 8/2/2012 at 6:57:25 PM

Sample: AKFL41232C VAAKFL4VA CCAL 1221399999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 8/2/2012 2:45:34 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
19	2.69	C10	0.00	392831.5
47	6.16	Capric Acid	21.71	306745.2
75	9.90	o-Terphenyl SURR	50.12	1329960
93	12.18	C25	0.00	15784.37

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	71.835	33743720.0
2	9.87	9.97	50.120	1329960.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1393.26

% Level 2 DRO Difference = 248.315

% Level 3 DRO Difference = 74.15751

% Level 4 DRO Difference = -12.92124

Not Used
See Reintegration

FILES:

Area File: L214.0040.RAW
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 8/2/2012 5:54:58 PM
File reported on: 8/2/2012 at 6:56:11 PM

Sample: AKFL41232C VAAKFL4VA CCAL 1221399999 AK 102/103

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters:
Sample Amount: 1
Analyst: 2268

GC Column:
Injected on: 8/2/2012 2:45:34 PM
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
19	2.69	C10	0.00	406035.3
47	6.16	Capric Acid	22.70	320632.1
75	9.90	o-Terphenyl SURR	51.58	1368604
93	12.18	C25	0.00	30602.57

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	74.275	36246600.0
2	9.87	9.97	51.577	1368604.0

********** RESULTSTABLE **********

C10 - <C25 DRO AMT = 1499.182

% Level 2 DRO Difference = 274.7955

% Level 3 DRO Difference = 87.39773

% Level 4 DRO Difference = -6.301135

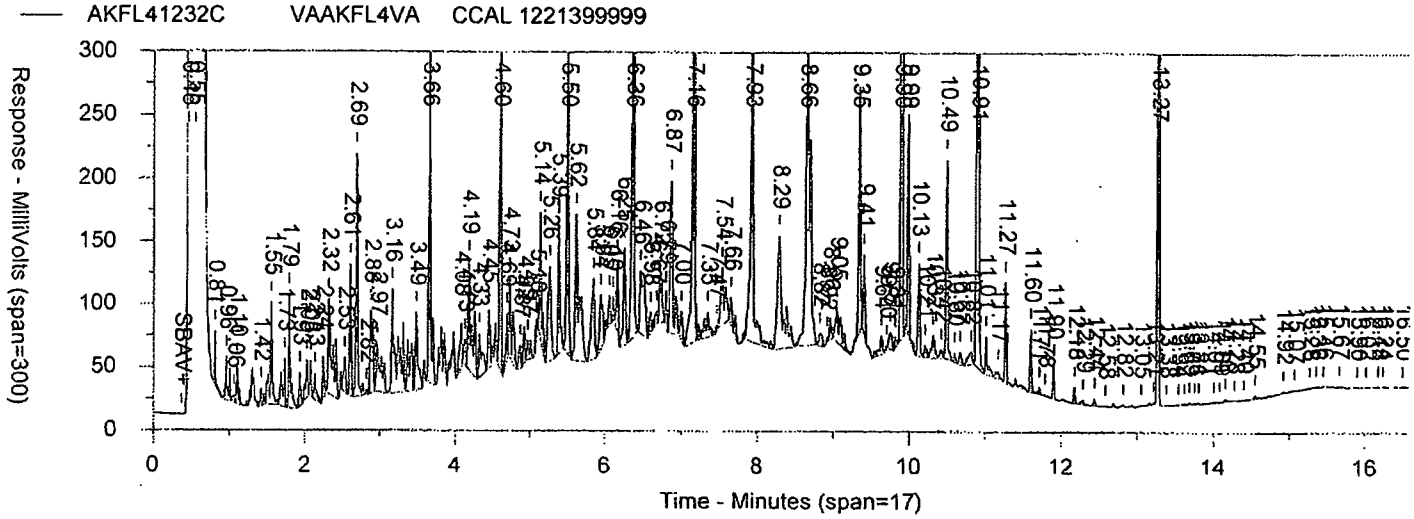
M = Manually Integrated
Analyst JH 8/2/12
Approved by DC 8-8-12
Circle Reason 1 (2) 3 4
1 = Missed Peak
2 = Improper Baseline
3 = RT Update
4 = Other

FILES:

Area File: L214.0040.BND
Method File: AKDLSTD.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSTD.FMT
Area file created on: 8/2/2012 7:41:03 PM
File reported on: 8/2/2012 at 7:41:03 PM

Chrom Perfect Chromatogram Report

Sample: AKFL41232C VAAKFL4VA CCAL 1221399999 AK 102/103 SURROGATE
File: L214.0040.RAW



Sample: AKFL41232C VAAKFL4VA CCAL 1221399999 AK102/103 SURROGATE

Instrument ID:CP24 Injected on: 8/2/2012 2:45:34 PM
Volume Inj. per Column: 1 GC Column:
Oven Parameters:
Sample Amount: 1 Dilution Factor: 1
Analyst: 2268

Peak #	Ret Time (min)	Peak Name	Amount PPM	Peak Area
19	2.69	C10	0.00	288550
47	6.16	Capric Acid	6.36	89901.19
75	9.90	o-Terphenyl SURR	37.75	1001802
93	12.18	C25	0.00	15784.37

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	9.87	9.97	37.753	1001802.0

o-Terphenyl Level 2 % Difference = 277.5344 %

o-Terphenyl Level 3 % Difference = 135.959 %

o-Terphenyl Level 4 % Difference = -5.616391 %

FILES:
Area File: L214.0040.RAW
Method File: REAKDLST.MET
Calibration File: AKDL192A.CAL
Format File: REAKDLST.FMT
Area file created on: 8/2/2012 5:54:58 PM
File reported on: 8/2/2012 at 6:58:33 PM

Raw QC Data

Lancaster Laboratories Range Data Summary

Sample Name: BLANKA 7/25/12 PBLK32206 Sample ID: AA **Batchnumber:** 122060032A
Sample Amount: 1000. Total Volume: 1. ml Analyst: 2268 SDG: State:
Analyses: 01741 02244

Injection Summary

Injected on : 7/26/2012 01:25:50
Instrument : CP24--H5386A
Result file : L207.0009.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 86% (50-150) Conc.: 10.286

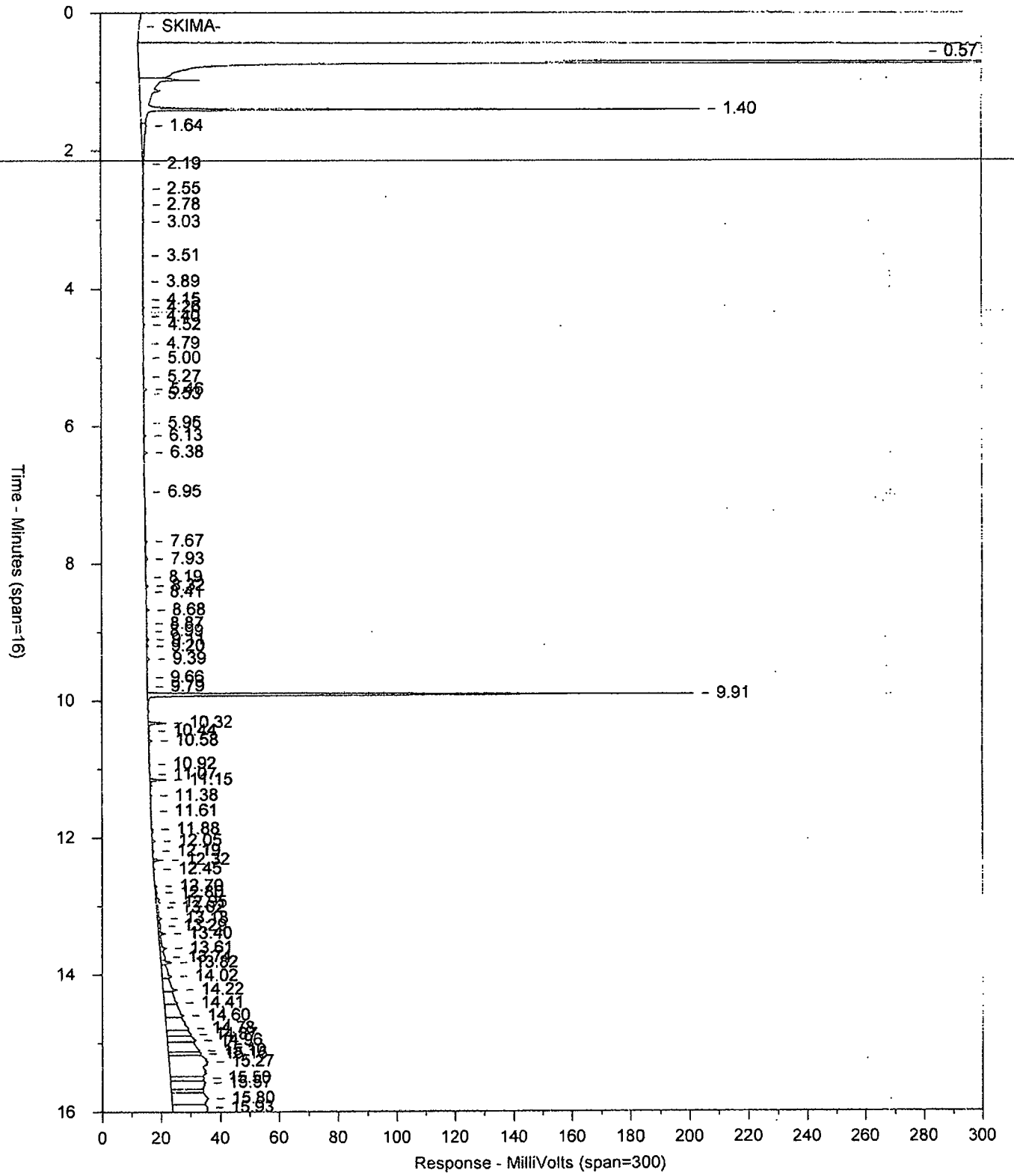
Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	340951	0.0029	<0.25	<0.05		ppm
☐ o-Terphenyl SURR	9.91 (9.87 - 9.97)	272946	10.2860				ppb

Comments:

Reviewed by: [illegible] Verified by: Tracy A. Cole
Date: 7/27/12 Date: JUL 30 2012

Tracy A. Cole
Senior Specialist

Sample: BLANKA 7/25/12 AAPBLK32206 BLK 122060032A 01741 AK102/AK 103 04/08/02
File: L207.0009.RAW



AKF94 0219

Chrom Perfect Chromatogram Report

Sample: BLANKA 7/25/12 AAPBLK32206 BLK 122060032A 01741 AKI 022/09K 103 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/26/2012 1:25:50 AM
GC Column: ZB5 30m X 0.32mm X 0.25un

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
20	6.13	Capric Acid	0.11	1589.582
36	9.91	o-Terphenyl SURR	10.29	272945.8
47	12.19	C25	0.00	935.4157

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	10.399	340950.5
2	9.87	9.97	10.286	272945.8

********** RESULTS TABLE **********

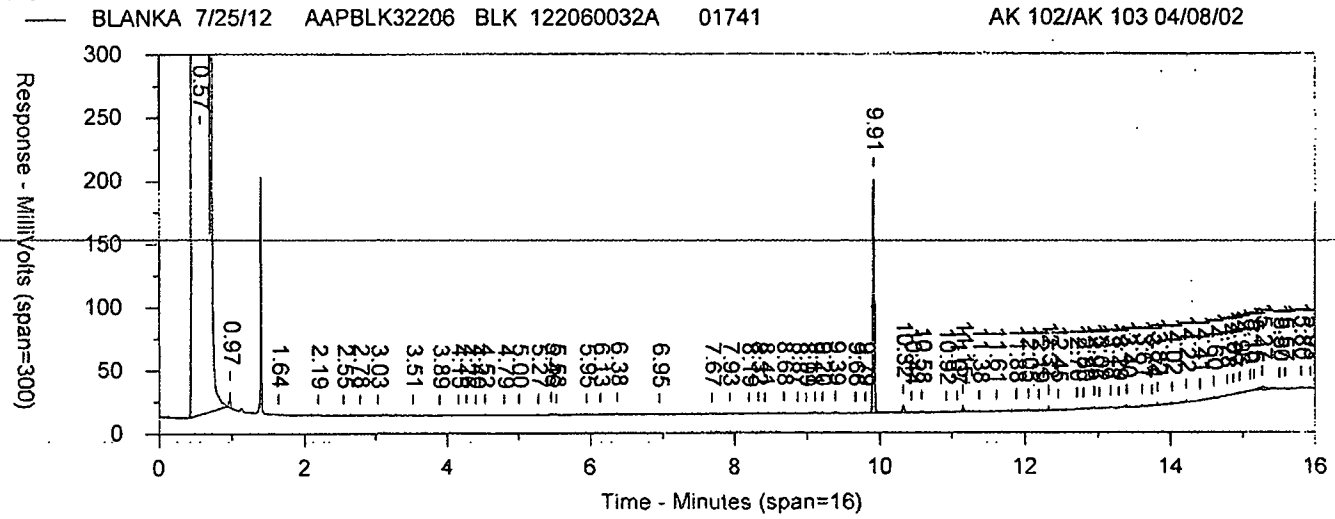
C10-<C25 DRO AREA = 340950.5
C10-<C25 AMT = 0.002923086

FILES:

Area File: L207.0009.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/26/2012 1:45:52 AM
File reported on: 7/26/2012 at 1:45:56 AM

Chrom Perfect Chromatogram Report

Replot: BLANKA 7/25/12 AAPBLK32206 BLK 122060032A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L207.0009.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/26/2012 1:25:50 AM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
20	6.13	Capric Acid	0.00	1589.582
36	9.91	o-Terphenyl SURR	0.01	272945.8
47	12.19	C25	0.00	935.4157

O-TERPHENYL % RECOVERY = 85.71761 %

Capric Acid % recovery = 0.02277908 %

FILES:

Area File: L207.0009.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/26/2012 1:45:52 AM
File reported on: 7/26/2012 at 1:46:02 AM

Lancaster Laboratories-Range Data Summary

Sample Name: BLANKA 7/25/12S PBLK33206 Sample ID: AB **Batchnumber:** 122060033A
Sample Amount: 1000. Total Volume: 1. ml Analyst: 2268 SDG: State:
Analyses: 02244

Injection Summary

Injected on : 7/27/2012 22:10:02
Instrument : CP24--H5386A
Result file : L209.0007.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 72% (50-150) Conc.: 8.601

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	407211	0.0077	<0.25	<0.05		ppm
☐ o-Terphenyl SURR	9.91 (9.87 - 9.97)	228224	8.6010				ppb

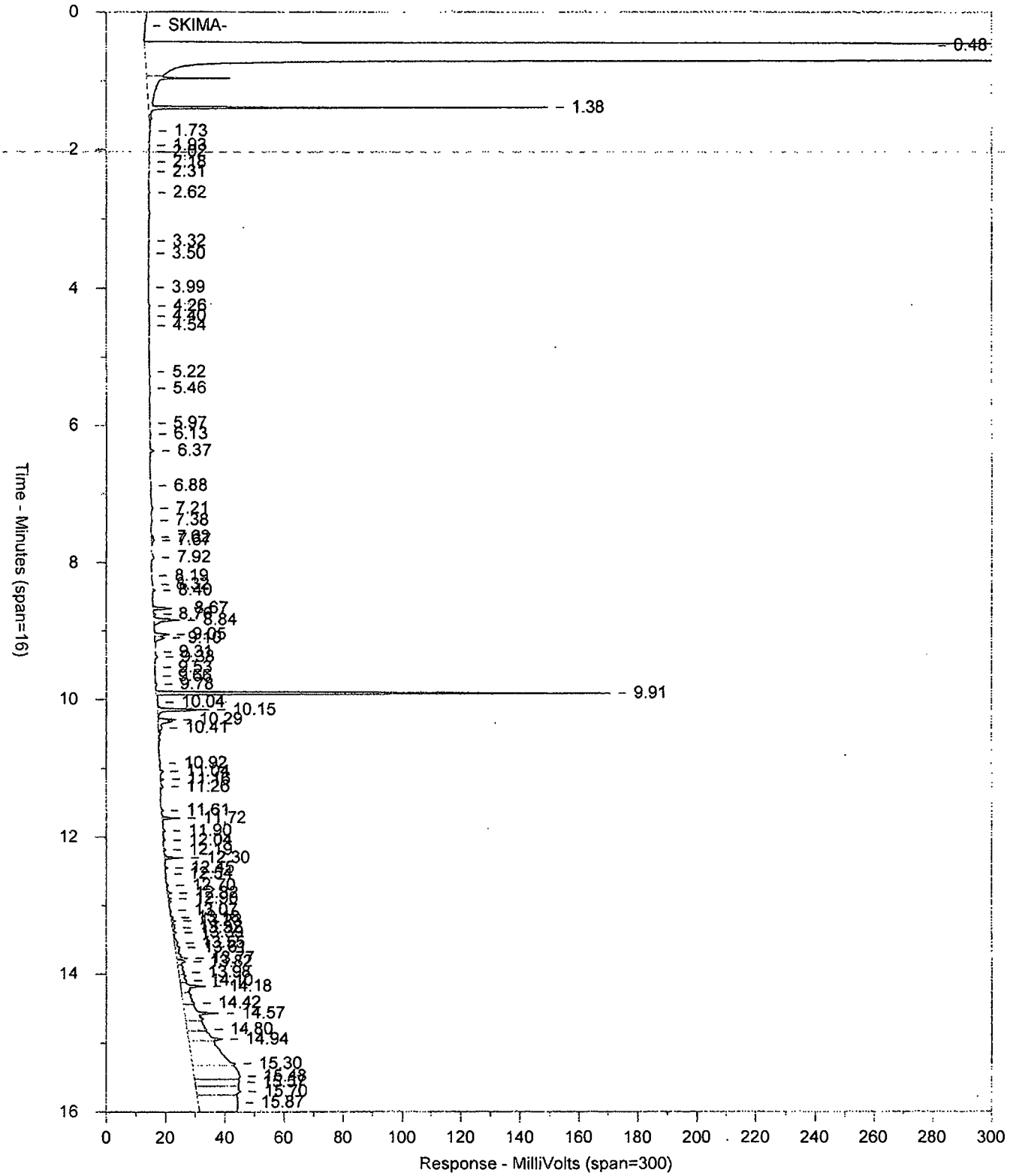
Comments:

Reviewed by: th
Date: 8/1/12

Verified by: Tracy A. Cole
Date: AUG 08 2012

Tracy A. Cole
Senior Specialist

Sample: BLANKA 7/25/12S ABPBLK33206 BLK 122060033A 02244 AK 102/AK 103 04/08/02
File: L209.0007.RAW



Sample: BLANKA 7/25/12S ABPBLK33206 BLK 122060033A 02244 AKA02070AK 103 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/27/2012 10:10:02 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
18	6.13	Capric Acid	0.08	1096.878
39	9.91	o-Terphenyl SURR	8.64	229352.8
52	12.19	C25	0.00	1577.601

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	8.721	407211.5
2	9.87	9.97	8.643	229352.8

********** RESULTS TABLE **********

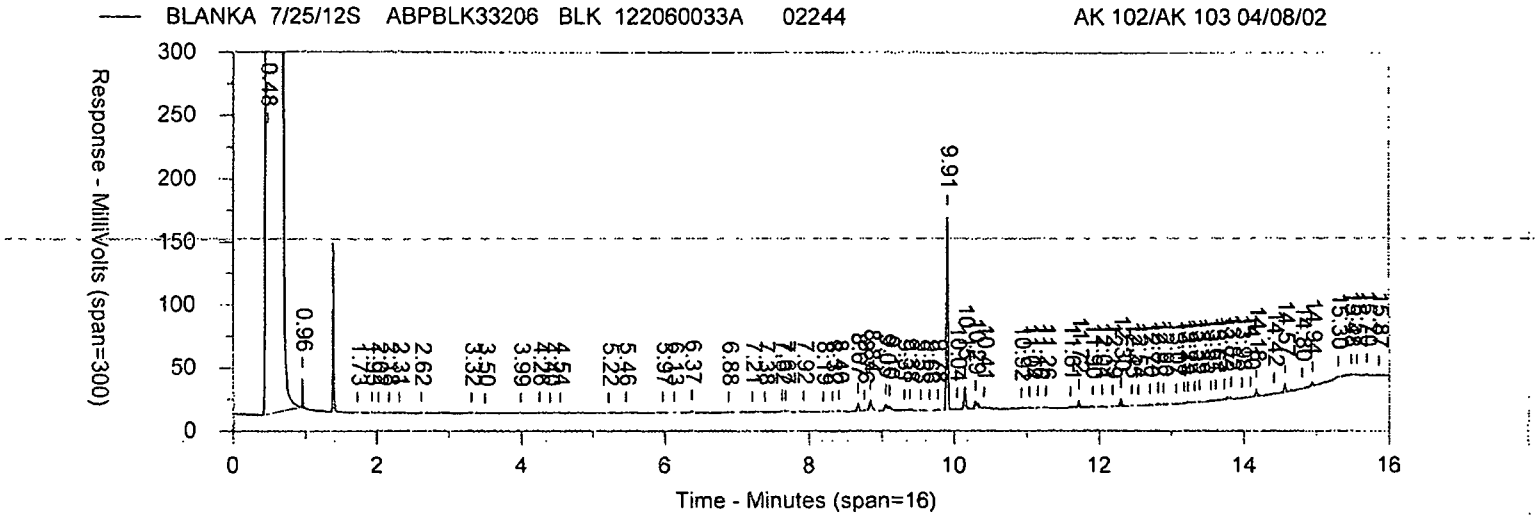
C10-<C25 DRO AREA = 407211.5
C10-<C25 AMT = 0.007645004

FILES:

Area File: L209.0007.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/27/2012 10:30:03 PM
File reported on: 7/28/2012 at 12:51:23 PM

Chrom Perfect Chromatogram Report

Replot: BLANKA 7/25/12S ABPBLK33206 BLK 122060033A 02244 AK 102/103 AK 102/AK 103 04/08/02
File: L209.0007.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/27/2012 10:10:02 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
18	6.13	Capric Acid	0.00	1096.878
39	9.91	o-Terphenyl SURR	0.01	228224
52	12.19	C25	0.00	1577.601

O-TERPHENYL % RECOVERY = 71.67289 %

Capric Acid % recovery = 0.01571852 %

FILES:

Area File: L209.0007.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/27/2012 10:30:03 PM
File reported on: 7/28/2012 at 12:52:35 PM

Lancaster Laboratories-Range Data Summary

Sample Name: BLANKA 7/27/12 PBLK11209 Sample ID: AA **Batchnumber:** 122090011A
Sample Amount: 1000. Total Volume: 1. ml Analyst: 2268 SDG: State:
Analyses: 01741 02244

Injection Summary

Injected on : 7/28/2012 18:06:47
Instrument : CP24--H5386A
Result file : L210.0005.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 91% (50-150) Conc.: 10.977

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
C10-<C25 DRO	2.61 - 12.09	538505	0.0106	<0.25	<0.05		ppm
o-Terphenyl SURR	9.90 (9.87 - 9.97)	291269	10.9770				ppb

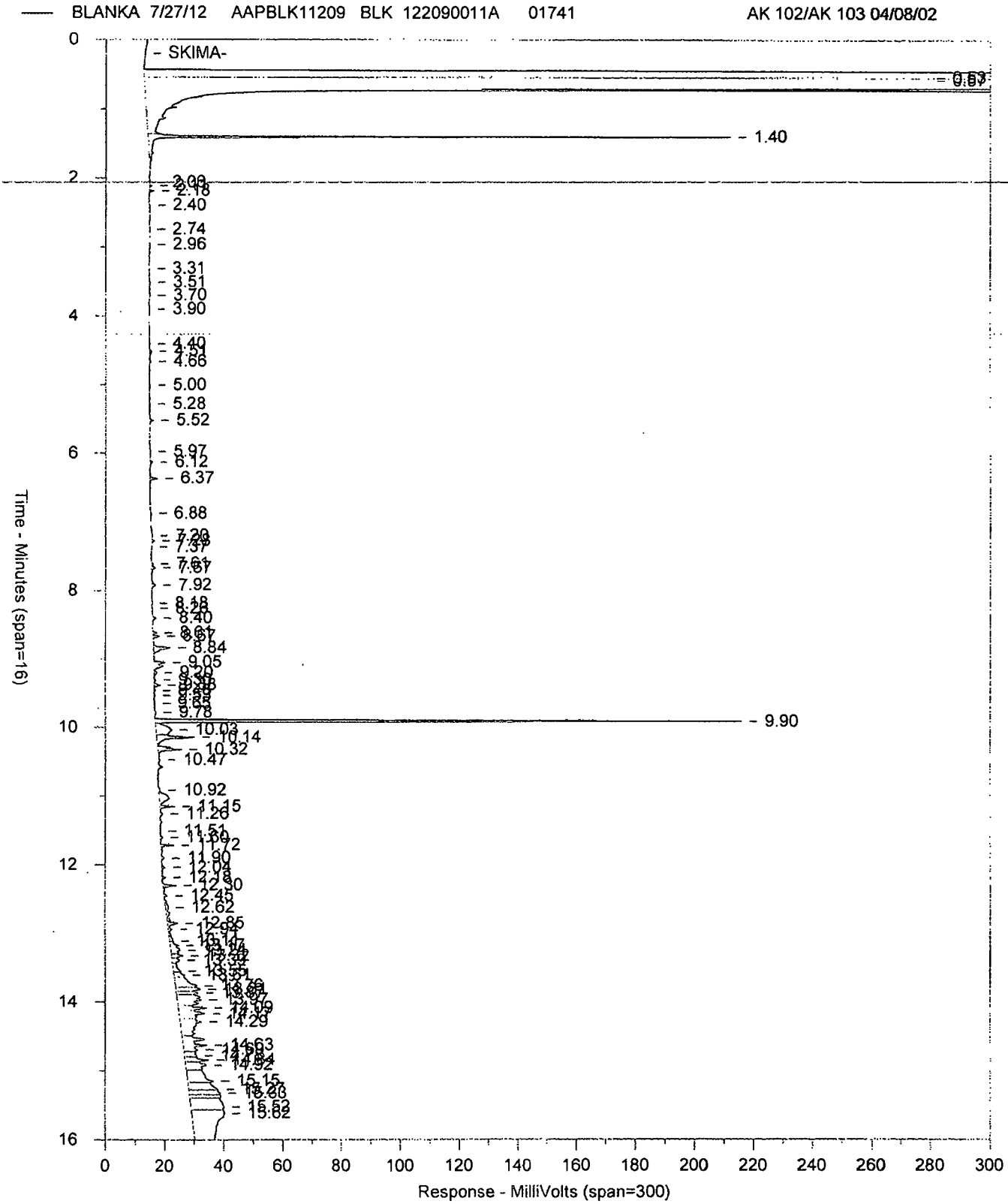
Comments:

Tracy A. Cole

Reviewed by: Th
Date: 8/2/12

Verified by: AUG 0 3 2012
Date:
Tracy A. Cole
Senior Specialist

Sample: BLANKA 7/27/12 AAPBLK11209 BLK 122090011A 01741 AK102/AK 103 04/08/02
File: L210.0005.RAW



Sample: BLANKA 7/27/12 AAPBLK11209 BLK 122090011A 01741 AKK 022/AK 103 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/28/2012 6:06:47 PM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
8	2.74	C10	0.00	1462.503
21	6.12	Capric Acid	0.14	1964.586
44	9.90	o-Terphenyl SURR	11.11	294711.6
57	12.18	C25	0.00	2061.458

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	11.245	538504.7
2	9.87	9.97	11.106	294711.6

********** RESULTS TABLE **********

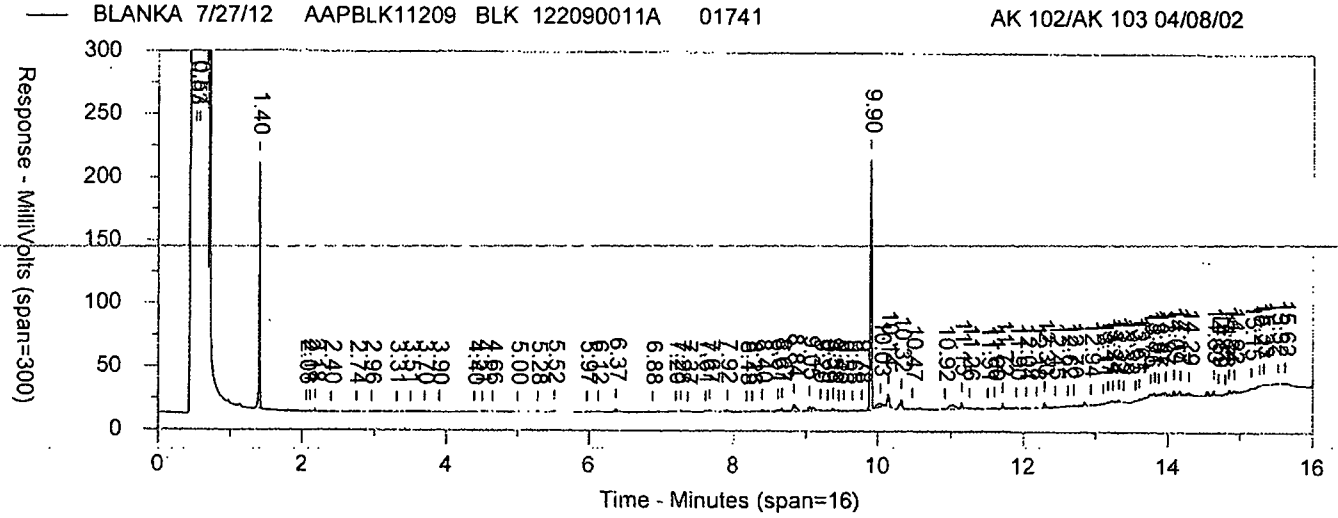
C10-<C25 DRO AREA = 538504.7
C10-<C25 AMT = 0.0104791

FILES:

Area File: L210.0005.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 7/28/2012 6:26:48 PM
File reported on: 7/30/2012 at 6:34:50 PM

Chrom Perfect Chromatogram Report

Replot: BLANKA 7/27/12 AAPBLK11209 BLK 122090011A 01741 AK 102/103 AK 102/AK 103 04/08/02
File: L210.0005.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 7/28/2012 6:06:47 PM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
8	2.74	C10	0.00	1462.503
21	6.12	Capric Acid	0.00	1964.586
44	9.90	o-Terphenyl SURR	0.01	291268.8
57	12.18	C25	0.00	2061.458

O-TERPHENYL % RECOVERY = 91.47186 %

Capric Acid % recovery = 0.02815297 %

FILES:

Area File: L210.0005.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 7/28/2012 6:26:48 PM
File reported on: 7/30/2012 at 6:35:40 PM

Lancaster Laboratories-Range Data Summary

Sample Name: BLANKA 7/31/12S PBLK36212 Sample ID: AB **Batchnumber:** 122120036A
Sample Amount: 1000. Total Volume: 1. ml Analyst: 2268 SDG: State:
Analyses: 02244

Injection Summary

Injected on : 8/2/2012 06:41:35
Instrument : CP24--H5386A
Result file : L214.0023.RAW
Calibration files : AKDL192A.CAL
Method files : AKDLSUM.MET REAKDL.MET
Setting : AKDL192AW

Surrogate Recoveries

O-TERPHENYL SURR 72% (50-150) Conc.: 8.63

Range	Retention Times	Area	Amount	LOQ	MDL	Flags	Units
☐ C10-<C25 DRO	2.61 - 12.09	1074800	0.0364	<0.25	<0.05		ppm
☐ o-Terphenyl SURR	9.89 (9.87 - 9.97)	228990	8.6300				ppb

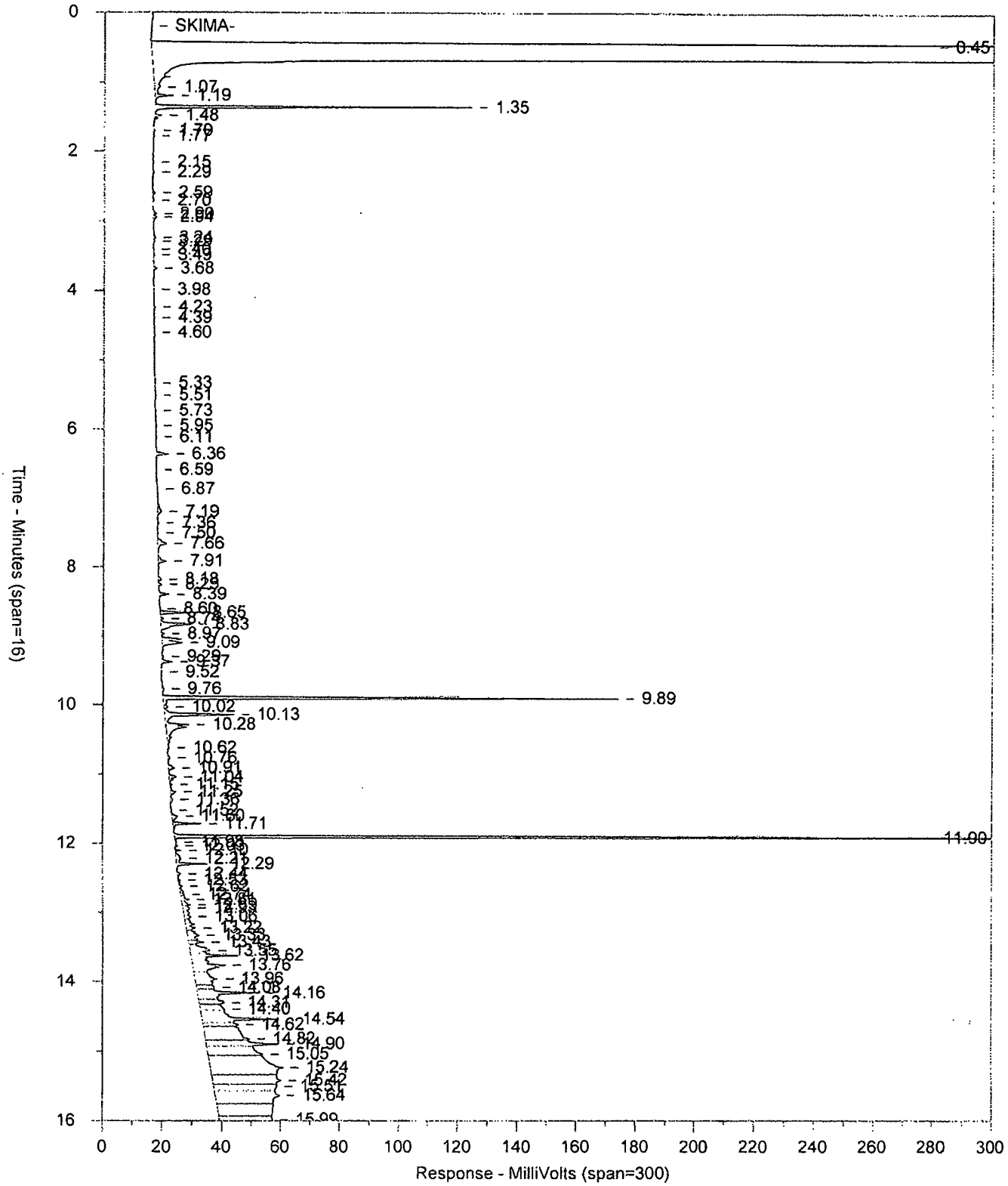
Comments:

Tracy A. Cole

Reviewed by: Dh
Date: 8/6/12

Verified by: AUG 08 2012
Date:
Tracy A. Cole
Senior Specialist

Sample: BLANKA 7/31/12S ABPBLK36212 BLK 122120036A 02244 AK 102/AK 103 04/08/02
File: L214.0023.RAW



Sample: BLANKA 7/31/12S ABPBLK36212 BLK 122120036A 02244 AKA102012AK 103 04/08/02

Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 8/2/2012 6:41:35 AM
GC Column: ZB5 30m X 0.32mm X 0.25um

Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (ppb)	Area
11	2.70	C10	0.00	1023.435
27	6.11	Capric Acid	0.06	815.1111
49	9.89	o-Terphenyl SURR	8.76	232437.8
67	12.21	C25	0.00	9638.3

Slice Number	Start Time	Stop Time	Slice Amount	Slice Area
1	2.61	12.09	8.817	1074800.0
2	9.87	9.97	8.760	232437.8

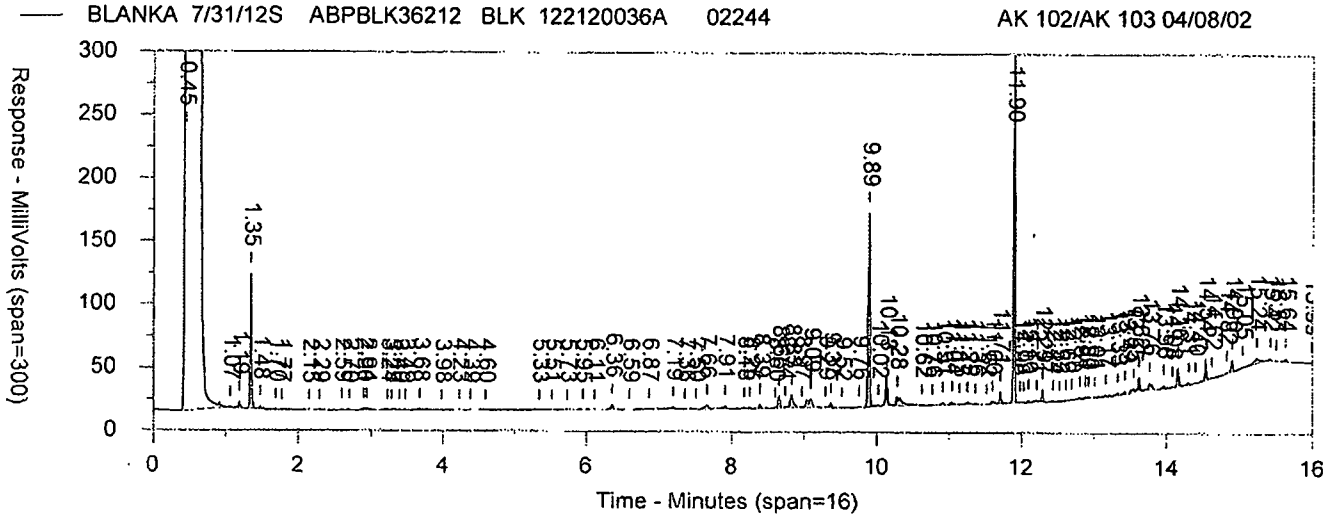
********** RESULTS TABLE **********

C10-<C25 DRO AREA = 1074800
C10-<C25 AMT = 0.03620775

FILES:

Area File: L214.0023.RAW
Method File: AKDLSUM.MET
Calibration File: AKDL192A.CAL
Format File: AKDLSUM.FMT
Area file created on: 8/2/2012 5:54:56 PM
File reported on: 8/2/2012 at 6:55:37 PM

Replot: BLANKA 7/31/12S ABPBLK36212 BLK 122120036A 02244 AK 102/103 AK 102/AK 103 04/08/02
File: L214.0023.RAW



Instrument ID:CP24
Volume Inj. per Column: 1
Oven Parameters: 50C for 2mins; 15C/min to 180C; 30C/min to 340C; hold 2mins
Sample Amount: 1000
Analyst: 2268

Injected on: 8/2/2012 6:41:35 AM
GC Column: ZB5 30m X 0.32mm X 0.25um
Dilution Factor: 1

Peak	Ret Time (min)	Peak Name	Amount (PPM)	Area
11	2.70	C10	0.00	1023.435
27	6.11	Capric Acid	0.00	815.1111
49	9.89	o-Terphenyl SURR	0.01	228990.1
67	12.21	C25	0.00	5943.743

O-TERPHENYL % RECOVERY = 71.91348 %

Capric Acid % recovery = 0.01168073 %

FILES:

Area File: L214.0023.RAW
Method File: REAKDL.MET
Calibration File: AKDL192A.CAL
Format File: REAKDL.FMT
Area file created on: 8/2/2012 5:54:56 PM
File reported on: 8/2/2012 at 6:57:29 PM

Extraction/Distillation/Digestion Logs

Organic Extraction Batchlog | Assigned to: 2257 Cynthia Salvatori | Reviewed by: dh | Start Date: 7/25/12 | Start time: 9:25

122060032A

Tech 1: CS2257 | Tech 2:

Dept: 32 Prep Analysis: 11184 AK DRO Waters Extraction TPH-DRO AK water C10-C25

QC	Sample Code	Amt mL	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
BLANKA *	PBLK32206	1000	SS1218032A	1			1	—		—	DI H_2O
LCSA *	LCS32206	1000	SS1218032A	1	~~MS1218032A~~	1	1			—	
LCSDA *	LCSD32206	1000	SS1218032A	1	~~MS1218032A~~	1	1			—	↓

Solvent Used	Lot No.
1:1 HCl	B103-21
Methylene Chloride	42E02
Sodium Sulfate	1220SA

*Split w/batch 122060033A

1:1 HCl added to QC

Spike Solutions: ~~MS1219132A~~ ~~MS1218032A~~ SS1218032A

Witness: —

DRO WATER SPIKE

DRO WATER SURROGATE

Sample #	Sample Code	Amt mL	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1 6727319 *	CDJM4	1053	SS1218032A	1	1	—		29A	tan tint w/red	01741	07/30/2012	P
2 6727320 *	CDJ4D	1050	SS1218032A	1	1			29A	↓	01741	07/30/2012	P
3 6729226	KSEQB	1052	SS1218032A	1	1	—		29A	clear	01741	07/31/2012	P

CS2257
7/25/12

Rack ID:		Work Station	H_2O 3
Internal Standard		Balance #	15641

S-bath ID	88 C	S-bath ID	— C	N-Evap	— C	M-vap	— C	122060032A

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume

Organic Extraction Batchlog

122060033A

Assigned to: 2257 Cynthia Salvatori

Reviewed by: [illegible]

Start Date: 7/25/12

Start time: 9:25

Tech 1: CT52257

Tech 2:

Dept: 32	Prep Analysis: 11242 AK DRO Ext (W) w/SG										TPH-DRO AK C10-C25 w/Si Gel
QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
BLANKA *	PBLK33206	1000	SS1218032A	1			1	—		—	DI H2O
LCSA *	LCS33206	1000	SS1218032A	1	~~MS1218032A~~ *	1	1			—	↓
LCSDA *	LCSD33206	1000	SS1218032A	1	~~MS1218032A~~ *	1	1			—	↓

Solvent Used	Lot No.
1:1 HCl	B103-21
Methylene Chloride	L12E02
Sodium Sulfate	122057

* Split w/batch 122060032A

1:1 HCl added to QC

*MS1218032A ~~MS1218032A~~

Spike Solutions: Witness: —

DRO WATER SPIKE

SS1218032A DRO WATER SURROGATE

	Sample #	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6727319 *	CDJM4	1053	SS1218032A	1	1			29A	tan tint w/sed	02244	07/30/2012	P
2	6727320 *	CDJ4D	1050	SS1218032A	1	1			29A	↓	02244	07/30/2012	P

CT52257
7/25/12

Rack ID:		Work Station	H2O 3
Internal Standard		Balance #	15661

S-bath ID 1	88 C	S-bath ID —	C	N-Evap —	C	M-vap —	C	122060033A

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume

Organic Extraction Batchlog | Assigned to: 1364 JoElla Rice | Reviewed by: JHm | Start Date: 7-27-12 | Start time: 16:30

122090011A

Tech 1: MLH | Tech 2:

Dept: 32 Prep Analysis: 11184 AK DRO Waters Extraction TPH-DRO AK water C10-C25

QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
BLANKA	PBLK11209	1000	~~SS1218032A~~ Ø	1.0	—	—	1	—	—	—	DI H2O
LCSA	LCS11209	1000	~~SS1218032A~~ Ø	1.0	MS1219132A	1.0	1	—	—	—	↓
LCSDA	LCSD11209	1000	~~SS1218032A~~ Ø	1.0	MS1219132A	1.0	1	—	—	—	↓

Solvent Used	Lot No.
1:1 HCl	B103-21
Methylene Chloride	L09E65
Sodium Sulfate	122088A

Ø SS1220932A

Spike Solutions: Witness: N/A

MS1219132A DRO WATER SPIKE

~~Ø SS1218032A~~ DRO WATER SURROGATE

5mL 1:1 HCL added to QC MLH 7-27-12

Sample #	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1 6723653 X	GSA15	1050	~~SS1218032A~~ Ø	1.0	1	—	—	29C	brown	01741	07/26/2012	P
2 6727319 R	CDJM4	1042	~~SS1218032A~~ Ø	1.0	1	—	—	29B	cloudy	01741	07/30/2012	P
~~3 6727320 R~~	~~CDJ4D~~		~~SS1218032A~~						~~[illegible] as sample~~	01741	07/30/2012	P
4 6729226 R	KSEQB	1054	~~SS1218032A~~ Ø	1.0	1	—	—	29B	clear	01741	07/31/2012	P

MLH 7-27-12

X (Centrifuged) 3X

Rack ID:		Work Station	Bench 5
Internal Standard		Balance #	15661

DF = Dilution Factor FV = Final Volume

16981

S-bath ID	88 C	S-bath ~~ID~~	~~C~~	N-Evap	~~C~~	~~M-vap~~	~~C~~	122090011A

Documented temps are NIST corrected.

Organic Extraction Batchlog Assigned to: 2761 Catherine Wiker

Reviewed by: th Start Date: 7/31/12 Start time: 10:00

122120036A

Tech 1: WH52991 Tech 2:

Dept: 32 Prep Analysis: 11242 AK DRO Ext (W) w/SG TPH-DRO AK C10-C25 w/Si Gel

QC	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments
BLANKA	PBLK36212	1000	SS1220932A	1			1				DI H_2O
LCSA	LCS36212	1000	SS1220932A	1	MS1220932A	1	1				↓
LCSDA	LCSD36212	1000	SS1220932A	1	MS1220932A	1	1				↓

Solvent Used	Lot No.
1:1 HCl	B103-21
Methylene Chloride	L09E05
Sodium Sulfate	122120A

*1:1 HCl added to QC

Spike Solutions: Witness:
MS1220932A DRO WATER SPIKE
SS1220932A DRO WATER SURROGATE

	Sample #	Sample Code	Amt (mL)	SS/IS Sol.	Amt (mL)	FV (mL)	pH	pH	BC	Comments	Analyses	Due Date	Prio
1	6723653 R	GSA15	1048	SS1220932A	1	1			29D	gray + Cloudy	02244	07/26/2012	P
2	6727319 R	CDJM4	1053	SS1220932A	1	1			29C	↓	02244	07/30/2012	P
3	6736012	ISF01	1030	SS1220932A	1	1			29A	Red + muddy	02244	08/06/2012	P
4	6736013	ISF02	1045	SS1220932A	1	1			29A	yellow tint	02244	08/06/2012	P
5	6736014	ISF03	1028	SS1220932A	1	1			29A	light gray	02244	08/06/2012	P
6	6736015BKG	ISF04	1030	SS1220932A	1	1			29A	light yellow	02244	08/06/2012	P
7	6736018	ISF05	1017	SS1220932A	1	1			29A	light gray	02244	08/06/2012	P
8	6736019	ISF06	993	SS1220932A	1	1			29A	Blank	02244	08/06/2012	P
9	6736020	ISF14	1002	SS1220932A	1	1			29A	light gray	02244	08/06/2012	P
10	6736021	ISFG5	905	SS1220932A	1	1			29A	Dark gray + muddy	02244	08/06/2012	P
11	6736022	ISFG6	1054	SS1220932A	1	1			29A	light gray tint	02244	08/06/2012	P
12	6736023	ISFG9	1005	SS1220932A	1	1			29A	↓	02244	08/06/2012	P
13	6736024	ISF10	1057	SS1220932A	1	1			29A	↓	02244	08/06/2012	P

Rack ID:		Work Station	H_2O 3
Internal Standard		Balance #	15661

S-bath ID 1	88° C	S-bath ID 9	88° C	N-Evap	C	M-vap	C	122120036A

Documented temps are NIST corrected.

DF = Dilution Factor FV = Final Volume

Prep-Process Worksheet

10 g Silica Gel Column Cleanup
Prep: 11242 AK DRO Ext (W) w/SG
Batch: 122120036A

Verified: [illegible]
Start Date: 8/1/12
Start Time: 9:00
Tech 1: CJS2257
Tech 2:

Sample #		QC	Aliquot (mL)	Final Volume (mL)	D.F. Aliq	D.F. F.V.	Comments	Analyses
1	6723653		1	1				02244
2	6727319		1	1				02244
3	6736012		1	1				02244
4	6736013		1	1				02244
5	6736014		1	1				02244
6	6736015		1	1				02244
7	6736018		1	1				02244
8	6736019		1	1				02244
9	6736020		1	1				02244
10	6736021		1	1				02244
11	6736022		1	1				02244
12	6736023		1	1				02244
13	6736024		1	1				02244
Blank			1	1			0.1 mL capric acid spike MS1228132B added to QC + all samples	
LCS			1	1				
LCSD			1	1				

CJS2257
8/1/12

Additional Comment: _____

DF = Dilution Factor FV = Final Volume

Solvent Used	Lot No.	Solvent Used	Lot No.
		Silica Gel	UE12E2EMS
		2:3 Methylene/Pentane	225708012A

S-Evap/bath	C	S-Evap/bath	C	N-Evap	C

The documented temperatures are NIST corrected.

Instrumental Wet Chemistry Data

Case Narrative/Conformance Summary

Lancaster Laboratories

CLIENT: ChevronTexaco
SDG: AKF94

Instrumental Water Quality

Sample #	Matrix Liquid	Solid	Comments
6727319	X		

ANALYSIS:

Dilutions are listed in the table below:

Samples	Nitrate Nitrogen	Sulfate
6727319		U,D / DF5,R/ DF10
LCS	DF10	

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

Site specific matrix QC samples were not submitted for all analyses in this SDG. Where matrix QC was performed on samples from another project, the matrix effects would not be relevant and matrix QC is not provided in the data package. Laboratory spike data (LCS) are provided.

Method defined actions are taken for any failed matrix QC.

DATA INTERPRETATION:

No further interpretation is necessary for the data submitted.

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric
IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration
V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer

Narrative Reviewed and Approved by:

Sandra J. Miller Date 8/10/12
Dana Kauffman
Manager of Data Deliverables

Quality Control and Calibration Summary Forms

Lancaster Laboratories

Quality Control Reference List
Instrumental Water Quality

CLIENT: ChevronTexaco
SDG: AKF94

Analyte	Batch Number	Sample Number
Nitrate Nitrogen	12208106102A	6727319
		Blank
		LCS
Nitrite Nitrogen	12202105101A	6727319
		Blank
		LCS
Sulfate	12208621901A	Blank
		LCS
Sulfate	12208621901B	6727319 U/BKG,R,D

Lancaster Laboratories

Quality Control Summary
Method Blank
Instrumental Water Quality
SDG: AKF94
Matrix: LIQUID

Parameter	Analysis Date	Method	Batch Number	Blank Results	Units	MDL	LOQ
Nitrate Nitrogen	07/26/12	AK	12208106102	N.D.	mg/l	0.040	0.10
Nitrite Nitrogen	07/20/12	AK	12202105101	N.D.	mg/l	0.015	0.050
Sulfate	07/26/12	IC	12208621901	N.D.	mg/l	0.30	1.0

Comments: The blank is acceptable when the result is less than the limit of quantitation.

Lancaster Laboratories

Quality Control Summary
Matrix Spike Analysis/ Matrix Spike Duplicate (MS/MSD)
Instrumental Water Quality
SDG: AKF94
Matrix: LIQUID

Sample Number	Parameter	Spike Analysis Date	ME	Batch #	Unspiked Sample Result	MS Spike Added	MSD Spike Added	MS Result	MSD Result	Units	MS Rec (%)	MSD Rec (%)	Acceptance Window (%)	RPD (%)	% RPD Limits <=
6727319	Sulfate	07/26/12	IC	12208621901B	2.1	50	NA	53.1	NA	mg/l	102	NA	90 - 110	NA	NA

Comments: (2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Lancaster Laboratories

Quality Control Summary
Duplicate Analysis
Instrumental Water Quality
SDG: AKF94
Matrix: LIQUID

Sample Number	Parameter	Analysis Date	ME	Batch #	Sample Result	Duplicate Result	Units	RPD (%)	Control Limits %
6727319	Sulfate	07/26/12	IC	12208621901B	2.1	2.2	mg/l	6(1)	20

Comments: (1) The sample and/or duplicate result is less than five times the LOQ.
* = Out of Specification

Lancaster Laboratories

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate (LCSD)
Instrumental Water Quality
SDG: AKF94
Matrix: LIQUID

Batch #	Parameter	Analysis Date	ME	True LCS/LCSD Value	LCS Results	LCSD Results	Units	Acceptance Range	% RPD Results	% RPD Acceptance <=
12208106102	Nitrate Nitrogen	07/26/12	AK	17.7	18.0	NA	mg/l	15.93 - 19.47	NA	NA
12202105101	Nitrite Nitrogen	07/20/12	AK	0.833	0.82	NA	mg/l	0.7456 - 0.92	NA	NA
12208621901	Sulfate	07/26/12	IC	7.5	7.6	NA	mg/l	6.7125 - 8.28	NA	NA

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Quality Control Summary
Initial And Continuing Calibration
Instrumental Analysis/NO2

SDG: AKF94

Instrument ID: 09106
Calibration Date: 07/20/2012

Analysis	AUTO CAL1	AUTO CAL2	AUTO CAL3	AUTO CAL4	AUTO CAL5	AUTO CAL6	CC
Nitrite-N	3.7286	3.0732	1.7465	1.0279	0.6762	0.5094	0.9999

Acceptance Range:
ICV/CCV: +/- 10%
ICB/CCB: < MDL

Concentration units: mg/L

Batch Numbers: 12202105101A
Run Start Dates: 07/20/2012
Run Names: 1220202C02

Sample	Nitrite-N		
	True	Result	%Rec
ICV	0.6	0.60189	100
ICB	0	ND	NA
CCV2	0.6	0.59469	99
CCB 1	0	ND	NA
CCV2	0.6	0.59631	99
CCB 2	0	ND	NA

* = Out of Specifications

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Quality Control Summary
Initial And Continuing Calibration
Instrumental Analysis/NO3

SDG: AKF94

Instrument ID: 09106
Calibration Date: 07/26/2012

Analysis	AUTO CAL1	AUTO CAL2	AUTO CAL3	AUTO CAL4	AUTO CAL5	AUTO CAL6	CC
Nitrate-N	3.2864	2.5763	1.0980	0.7124	0.4704	0.3904	0.9999

Acceptance Range:
ICV/CCV: +/- 10%
ICB/CCB: < MDL

Concentration units: mg/L

Batch Numbers: 12208106102A
Run Start Dates: 07/26/2012
Run Names: 1220801C02

Sample	Nitrate-N		
	True	Result	%Rec
ICV	2.5	2.61362	105
ICB	0	ND	NA
CCV2	2.5	2.58298	103
CCB 2	0	ND	NA
CCV2	2.5	2.53385	101
CCB 3	0	ND	NA
CCV2	2.5	2.53405	101
CCB 4	0	ND	NA
CCV2	2.5	2.71621	109
CCB 9	0	ND	NA
CCV2	2.5	2.59409	104
CCB 10	0	ND	NA

* = Out of Specifications

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Quality Control Summary
Initial And Continuing Calibration
Instrumental Analysis/Anion Scan

SDG: AKF94

Instrument ID: 17694
Calibration Date: 07/07/2012

Analysis	AUTO CAL1	AUTO CAL2	AUTO CAL3	AUTO CAL4	AUTO CAL5	R^2	CC
Sulfate	0.101724	0.196026	0.473401	0.949765	1.439771	0.9999	0.9999

Acceptance Range:
ICV/CCV: 90%-110%
ICB/CCB: < MDL

Concentration units: mg/L

Batch Numbers: 12208621901A, 12208621901B
Run Start Dates: 07/26/2012
Run Names: 1220802D09

	Sulfate		
Sample	True	Result	%Rec
ICV	7.5	7.6509	102
ICB	0	ND	NA
CCV2	7.5	7.4966	100
CCB	0	ND	NA
CCV2	7.5	7.5184	100
CCB	0	ND	NA
CCV2	7.5	7.3645	98
CCB	0	ND	NA

* = Out of Specifications

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LOQ/MDL Summary
Instrumental Water Quality

SDG: AKF94

Fraction:

Parameter	Default MDL	Default LOQ	Units
Nitrate Nitrogen	0.040	0.10	mg/l
Nitrite Nitrogen	0.015	0.050	mg/l
Sulfate	0.30	1.0	mg/l

Wet Chemistry Data

Case Narrative/Conformance Summary

Lancaster Laboratories

CLIENT: ChevronTexaco
SDG: AKF94

Miscellaneous Wet Chemistry

Sample #	Matrix Liquid	Solid	Comments
6727319	X		

ANALYSIS:
There were no dilutions performed for analyses associated with samples in this SDG.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:
Site specific matrix QC samples were not submitted for this SDG. The batch matrix QC was performed on samples from another project. Therefore the matrix effects would not be relevant and matrix QC is not provided in the data package. Laboratory spike data (LCS) are provided.

Method defined actions are taken for any failed matrix QC.

DATA INTERPRETATION:
No further interpretation is necessary for the data submitted.

Abbreviation Key

U = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
R = Matrix Spike (MS)	MDL = Method Detection Limit
M = Matrix Spike Duplicate (MSD)	ND = Not Detected
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D = Duplicate (DUP)	NA = Not Applicable
HS = High Spike	ME = Method
LS = Low Spike	CO = Colorimetric
SS = Soluble Spike	G = Gravimetric
IS = Insoluble Spike	IR = Infrared Spectrophotometry
ISD = Insoluble Spike Duplicate	MTR = Meter
PDS = Post Digestion Spike	OD = Oven Dried
* = Out of Specification	TI = Titration
V = Visual	TOC = Total Organic Carbon
AK = Alpkem	IC = Ion Chromatography
TC = Total Carbon	RA = Rapid Analyzer

Narrative Reviewed and Approved by:

Date 8/21/12

Dana Kauffman
Manager of Data Deliverables

QC Summary

Lancaster Laboratories

Quality Control Reference List
Miscellaneous Wet Chemistry

CLIENT: ChevronTexaco
SDG: AKF94

Batch Number	Sample Number	Phenolphthalein Alkalinity	Total Alkalinity
12206005204A	Blank		X
	LCS		X
12206005204B	6727319	X	X

Lancaster Laboratories

Quality Control Summary
Method Blank
Miscellaneous Wet Chemistry
SDG: AKF94
Matrix: LIQUID

Parameter	Analysis Date	Method	Batch Number	Blank Results	Units	MDL	LOQ
Total Alkalinity	07/25/12	TI	12206005204	N.D.	mg/l as CaCO3	0.70	2.0

Comments: The blank is acceptable when the result is less than the limit of quantitation.

Lancaster Laboratories

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate (LCSD)
Miscellaneous Wet Chemistry
SDG: AKF94
Matrix: LIQUID

Batch #	Parameter	Analysis Date	ME	True LCS/LCSD Value	LCS Results	LCSD Results	Units	Acceptance Range	% RPD Results	% RPD Acceptance <=
12206005204	Total Alkalinity	07/25/12	TI	188	186	NA	mg/l as CaCO3	169.2 - 206.8	NA	NA

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LOQ/MDL Summary
Miscellaneous Wet Chemistry

SDG: AKF94

Fraction:

Parameter	Default MDL	Default LOQ	Units
Phenolphthalein Alkalinity	0.70	2.0	mg/l as CaCO3
Total Alkalinity	0.70	2.0	mg/l as CaCO3