

GW - 054

AGWMR

9/13/2011



**CONESTOGA-ROVERS
& ASSOCIATES**

GW-054

6121 Indian School Road, NE Suite 200

Albuquerque, NM, USA 87110

Telephone: (505) 884-0672 Fax: (505) 884-4932

<http://www.craworld.com>

September 13, 2011

Reference No. 075006

Mr. Glenn vonGonten
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Subject: 2011 Annual Groundwater and Surface Water Monitoring Report
Groundwater Discharge Plan No. GW-054
ConocoPhillips Wingate Fractionating Plant
Gallup, New Mexico

Dear Mr. Price,

Conestoga-Rovers & Associates is pleased to deliver the enclosed Annual Groundwater Monitoring Report per the requirements of the Groundwater Discharge Plan GW-054.

Should you have any questions, please contact Kelly Blanchard at 505-884-0672.

Sincerely,

Kelly E. Blanchard
Project Manager/Geologist

Enclosures (1)

Cc: Beverly Cox, ConocoPhillips
Kim Kamps, ConocoPhillips
Tom Wynn, ConocoPhillips (electronic only)

RECEIVED-OGD
2011 SEP 14 PM 1:39

Equal
Employment Opportunity
Employer.



2011 ANNUAL GROUNDWATER AND SURFACE WATER MONITORING REPORT

**IN COMPLIANCE WITH GROUNDWATER
DISCHARGE PLAN GW-054**

**CONOCOPHILLIPS WINGATE FRACTIONATING PLANT
GALLUP, NEW MEXICO**

Prepared For:


ConocoPhillips

Risk Management and Remediation

420 South Keeler Avenue

Bartlesville, OK, 74004

SEPTEMBER 2011

REF. NO. 075006-95(2)

This report is printed on recycled paper.

**Prepared by:
Conestoga-Rovers
& Associates**

6121 Indian School Rd Ste. 200
Albuquerque, New Mexico 87110

Office: (505) 884-0672
Fax: (505) 884-4932

web: <http://www.CRAworld.com>

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION AND SITE HISTORY	1
2.0 SITE DESCRIPTION	2
3.0 GROUNDWATER SAMPLING METHODOLOGY	3
4.0 ANALYTICAL RESULTS	5
4.1 EVAPORATION POND PERIMETER MONITOR WELLS AND EVAPORATION POND SURFACE WATER SAMPLES.....	5
4.2 WINGATE FACILITY AND SURROUNDING MONITOR WELLS.....	6
5.0 SUMMARY AND RECOMMENDATIONS.....	8

LIST OF FIGURES

FIGURE 1	VACINITY MAP
FIGURE 2	SITE PLAN
FIGURE 3	POTENTIOMETRIC CONTOUR MAP
FIGURE 4	CONSTITUENT OF CONCERN CONCENTRATION MAP

LIST OF TABLES

TABLE 1	WELL COMPLETION AND GROUNDWATER ELEVATION SUMMARY
TABLE 2	GROUNDWATER ANALYTICAL RESULTS SUMMARY

LIST OF APPENDICES

APPENDIX A	ANALYTICAL CONCENTRATIONS VS. TIME GRAPHS AND SITE HYDROGRAPHS
APPENDIX B	GROUNDWATER SAMPLING FIELD FORMS
APPENDIX C	LABORATORY ANALYTICAL REPORTS

1.0 INTRODUCTION AND SITE HISTORY

The Wingate Fractionating Plant is located in McKinley County, New Mexico, within portions of Sections 9, 10, 15, 16, and 17, Township 15 North, Range 17 West (**Figure 1**). A Groundwater Discharge Plan for the Wingate Plant was first approved by the New Mexico Oil Conservation Division (OCD) on August 17, 1992, with the most recent revision dated April 9, 2009.

In accordance with Groundwater Discharge Plan GW-054, Conestoga-Rovers & Associates (CRA) conducted an annual groundwater sampling event from June 28 through July 1, 2011. This report presents results from this groundwater monitoring event.

2.0 SITE DESCRIPTION

The site consists of a gas fractionating plant with associated pipelines and storage tanks. The site is surrounded by a chain-link fence, and the office is located on the west end of the facility. Two evaporation ponds are located to the northwest of the site. These ponds are used and maintained by ConocoPhillips Company (ConocoPhillips) and are surrounded by a locked chain-link fence. All monitor wells are on ConocoPhillips, or ConocoPhillips-leased property except for WMW-3 and WMW-8, which are located on property belonging to El Paso Natural Gas. A Site Plan is provided as **Figure 2**.

The site lies along the south side of an east-west trending alluvial drainage formed by the south fork of the Puerco River. The site is approximately 6,590 feet above mean sea level (amsl), and lies on Quaternary-aged alluvium. To the south of the plant are the Zuni Mountains, reaching a maximum elevation of approximately 9,000 feet amsl. To the north of the plant, a red sandstone escarpment rises 400 feet above the valley to an elevation of approximately 7,000 feet amsl. The escarpment is comprised of Jurassic-age sandstone and siltstone deposits of the Entrada Formation. Groundwater at the site has been encountered during drilling at approximately 20 feet below ground surface (bgs), rising to approximately 8 feet bgs in well casing, suggesting confined aquifer conditions. **Table 1** lists well completion information and groundwater elevations. During the 2011 groundwater sampling event, the groundwater flow direction was predominantly to the northwest. This is consistent with previous data. A potentiometric groundwater surface elevation contour map is presented in **Figure 3**. There are currently 13 monitor wells on and surrounding the site.

3.0 GROUNDWATER SAMPLING METHODOLOGY

CRA performed groundwater monitoring activities from June 28 through July 1, 2011. A dual interface probe was used to measure groundwater depths and check for the presence of light non-aqueous phase liquids (LNAPL) in each of the site monitor wells; these data, along with casing diameter and total depth information, were used to calculate the water volume in each monitor well. Before and after each use, the dual interface probe was cleaned with an Alconox®/de-ionized water solution, and then rinsed with de-ionized water. Graphs presenting groundwater elevations versus time for each monitor well are presented in **Appendix A**. Water was purged from the wells with a submersible pump or disposable bailer until field parameters, including pH, oxidation reduction potential (ORP), dissolved oxygen (DO), conductivity, and temperature stabilized and/or three well volumes of water were removed. Field parameters were monitored using a YSI 556 multi-parameter sonde, and were recorded on CRA Well Development and Stabilization forms, as presented in **Appendix B**. The purpose of the purge was to obtain a groundwater sample representative of aquifer conditions rather than possible stagnant conditions in the well.

Following purging, groundwater samples were collected through dedicated polyvinyl chloride tubing attached to the submersible pump or hand bailed with a dedicated, disposable polyethylene bailer and placed into laboratory-prepared sample containers. Disposable nitrile gloves were worn by sampling personnel and were changed at each well location. The pump was decontaminated following each well sampling by circulating Alconox® soap and de-ionized water solution followed by a de-ionized water rinse. New tubing was used at each location. WMW-2, the monitor well known to historically contain benzene above the New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standard, was sampled with a disposable bailer. No measurable thickness of LNAPL was indicated by the dual interface probe in monitor well WMW-2 but a slight discontinuous sheen was observed on the surface of the purge water removed from the well prior to collecting the sample for laboratory analysis.

Following collection of groundwater from each sampling location, samples were immediately labeled, placed on ice, and chilled to approximately 4° Celsius. Samples were submitted to Accutest Laboratories (Accutest) in Houston, Texas for analyses of volatile organic compounds (VOC) including benzene, toluene, ethylbenzene, and total xylenes (BTEX) by Environmental Protection Agency

(EPA) Method 8260B; semi-volatile organics by EPA Method 8270C; chloride, sulfate, and nitrate by EPA Method 300.0A; alkalinity by Standard Method (SM) 2320B; dissolved metals including, arsenic, barium, calcium, cadmium, chromium, magnesium, selenium, silver, sodium, and lead by EPA Method 6010B; total dissolved solids (TDS) by SM 2540C; and pH by SM 4500H + B/9040. The analytical results have been summarized and are presented in **Table 2**. In addition to the above listed constituents, samples collected from the evaporation pond area (MWR-1, MW-2, and MW-3, East Pond and West Pond) were additionally analyzed for Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), and total coliform analyses by SM 5210B, 5220D, and 9223B, respectively. Results for these analyses are also presented in **Table 2**. Analytical results were compared to the New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards contained in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC). Applicable groundwater quality standards are found in Subsection A, *Human Health Standards*, and Subsection B, *Other Standards for Domestic Water Supply*.

A duplicate sample was collected from WMW-2 and analyzed for BTEX. The analytical results were consistent with the results for the primary sample.

4.0 ANALYTICAL RESULTS

The 2011 groundwater analytical results are presented in **Table 2. Appendix A** contains graphs depicting selected analytical results versus time for each well in addition to site hydrographs. The laboratory analytical report (including the chain-of-custody) is presented in **Appendix C**. The site map with analytical results for some of the commonly noted constituents of concern (COCs) that have historically occurred over the regulatory standards is included as **Figure 4**.

4.1 EVAPORATION POND PERIMETER MONITOR WELLS AND EVAPORATION POND SURFACE WATER SAMPLES

The shallow, vadose zone wells installed to monitor possible evaporation pond seepage are MWS-1 and MWS-2. These wells were installed at a depth of 15 feet and were screened from 5 to 15 feet. They were dry at the time they were constructed and were also dry at the time of the 2011 sampling fieldwork, as well as historically. Thus, no water samples were collected from these wells and no seepage is apparent from site evaporation ponds.

The samples from MWR-1, MW-2, and MW-3 did not contain BTEX above laboratory detection limits. Similarly, BOD was not found above laboratory detection limits in MWR-1, MW-2 and MW-3. Results for COD in MWR-1, MW-2 and MW-3 were comparable to historical results which have never exceeded the COD limit of 125 mg/l. The Discharge Plan limit for fecal coliform is 500/100 ml, however, since 2007 the OCD has allowed analysis of total coliform in place of fecal coliform due to the remote location of the site, the distance to the nearest analytical lab from the site, and the short laboratory holding time for fecal coliform analysis. There are currently no NMWQCC standards in place for total coliform or *e.coli*. Samples collected from MWR-1, MW-2, and MW-3 were all below laboratory detection limits with results of less than one colony per 100 ml for total coliform.

Analytical results indicate concentrations from MWR-1, MW-2, MW-3, were above the NMWQCC groundwater quality standard for manganese of 0.2 mg/L with results of 0.266 mg/L, 0.330 mg/L, and 0.525 mg/L, respectively. The TDS result was above the NMWQCC standard of 1,000 mg/L in MW-2 with a result of 1,010 mg/L. No other analytical results exceeded applicable NMWQCC groundwater quality standards in any of the evaporation pond perimeter monitor wells.

The East Evaporation Pond sample had a COD result slightly higher than historical results and above the Discharge Plan limit with a result of 132 mg/L. BOD was below the Discharge Plan limit and consistent with historical data. Constituents that returned analytical results over NMWQCC standards in the East Evaporation Pond were pH, sodium, sulfate, chloride, and TDS. Results for total coliform analysis indicate total coliform in the East Pond to be > 2419.6 colonies per 100 mL of water, however, results for *e.coli* indicate < 1 colony per 100 mL of water.

The West Evaporation Pond sample contained a COD concentration of 4,650 mg/L; and a BOD concentration of > 48.2 the Discharge Plan limit is 125 mg/L and 30 mg/L, respectively. The water sample collected from the West Evaporation Pond was below the laboratory detection limit for total coliform at < 1 colony per 100 mL of water. Constituents that returned analytical results over NMWQCC standards in the West Evaporation Pond were COD, BOD, sulfate, chloride and TDS. All analytical results for the Wingate evaporation ponds can be referenced on Table 2.

4.2 WINGATE FACILITY AND SURROUNDING MONITOR WELLS

Monitor wells WMW-1, WMW-3, WMW-4, WMW-5, WMW-6, WMW-7, and WMW-8 did not contain BTEX in concentrations above the laboratory detection limit of 1 microgram per liter (µg/L). The groundwater sample collected from WMW-2 contained 18,000 µg/L benzene. This concentration is above the human health groundwater quality standard of 10 µg/L for benzene. The increase from the 2010 annual groundwater sampling result could be attributed to the removal of RegenesiTM Oxygen Release Compound socks that were installed in the well from January 2006 through June 2010 in WMW-2. The benzene concentration in this well has decreased significantly since the 29,000 µg/L result in 2005. Monitor wells WMW-4 and WMW-7, down-gradient of WMW-2, did not contain concentrations of benzene suggesting that the benzene impacts are localized in the area of WMW-2.

The groundwater samples collected from WMW-1, WMW-2, and WMW-3 contained chloride in concentrations above NMWQCC groundwater quality standard of 250 mg/L.

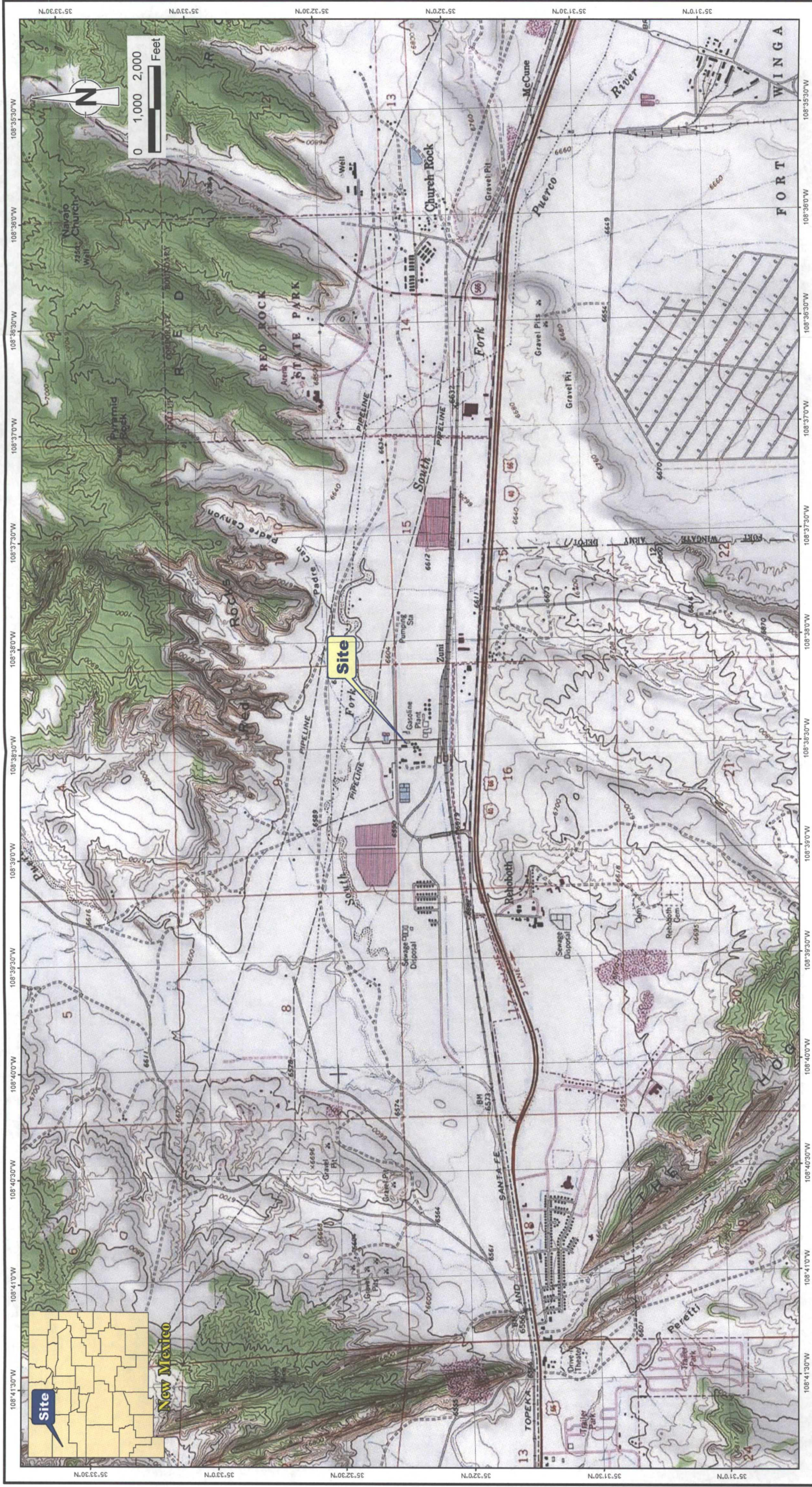
Samples collected from WMW-1, WMW-3, and WMW-5 contained sulfate and TDS concentrations above groundwater quality standards, while groundwater samples collected from WMW-2, WMW-4, WMW-6 and WMW-7 were only over the NMWQCC standard for TDS. TDS and sulfate concentrations in these monitor wells have remained relatively constant since 2005.

5.0 SUMMARY AND RECOMMENDATIONS

Site evaporation ponds showed no signs of seepage during the June 2011 monitoring event. However, the COD of the West Evaporation Pond was found to be elevated relative to the limits imposed by the Discharge Plan for the site. Concentrations of TDS, manganese, sulfate, and chloride have been found above NMWQCC groundwater quality standards in site monitor wells and evaporation ponds. The concentration of benzene in monitor well WMW-2 continues to exceed groundwater quality standards by several orders of magnitude; however, benzene was not detected down-gradient of WMW-2, suggesting a localized benzene impact around this monitor well. Historically, impacts have never been detected in groundwater samples collected from WMW-4, located down-gradient of WMW-2. As a result of these findings, CRA recommends the continuation of annual monitoring at the site, but recommends a decreased list of analytes for the next annual event. The decreased analyte list for facility and facility perimeter wells would consist of BTEX, dissolved manganese, chloride, sulfate, TDS and pH. In addition to the shortened list of analytes suggested for facility monitor wells, the evaporation ponds and pond perimeter monitor wells would also be analyzed for BOD, COD, nitrate and total coliform. The next monitoring event is scheduled to take place in June 2012.

Please contact Kelly Blanchard at (505) 884-0672 or Keb Blanchard@craworld.com if you have any questions or concerns regarding the information contained in this report.

FIGURES



RE: USGS 7.5 Minute Topographic Maps.

Figure 1
SITE VICINITY MAP
WINGATE GAS FRACTIONATING PLANT
ANNUAL GROUNDWATER SAMPLING
GALLUP, NEW MEXICO
ConocoPhillips Company





RE: USGS Aerial Photograph.

LEGEND

- Monitor Well Location
- ⊕ Re-Drill To Replace MW-1
- Plugged And Abandoned 6-24-03



075006-95(000)GN-BR002 SEP 06/2011

Figure 2
SITE PLAN WITH AERIAL PHOTOGRAPH
WINGATE GAS FRACTIONATING PLANT
ANNUAL GROUNDWATER SAMPLING
GALLUP, NEW MEXICO
ConocoPhillips Company



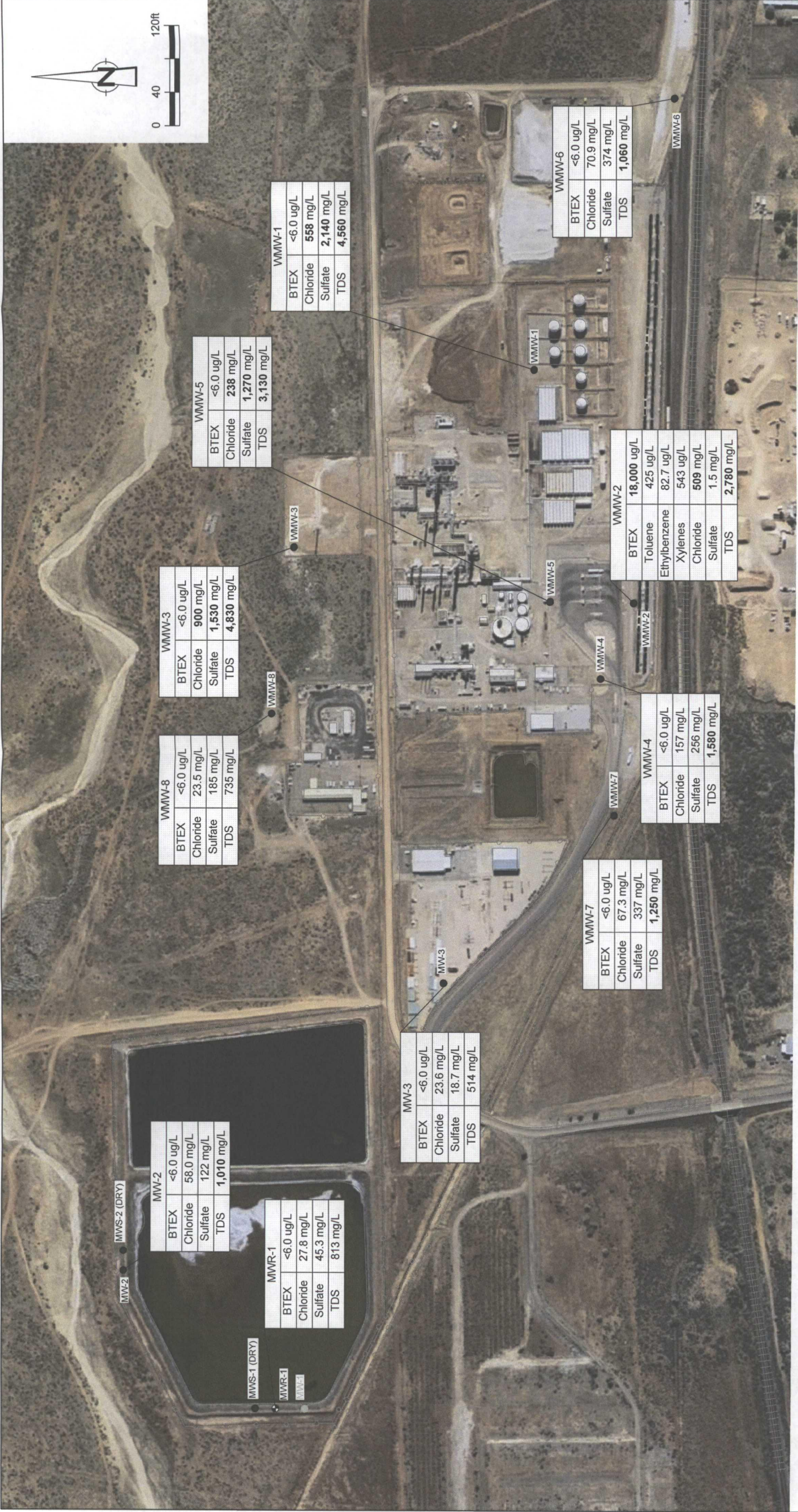
Figure 3
POTENTIOMETRIC ELEVATION AND CONTOUR MAP
WINGATE GAS FRACTIONATING PLANT
ANNUAL GROUNDWATER SAMPLING
GALLUP, NEW MEXICO
ConocoPhillips Company

RE: USGS Aerial Photograph.

LEGEND

●	Monitor Well	(6587.64)	GROUNDWATER ELEVATION, ft. AMSL
●	Re-Drill To Replace MW-1	6587	GROUNDWATER ELEVATION CONTOUR, ft. AMSL
■	Plugged And Abandoned 6-24-03	→	GROUNDWATER FLOW DIRECTION





RE: USGS Aerial Photograph.

LEGEND

- Monitor Well
- ⦿ Re-Drill To Replace MW-1
- ⦿ Plugged And Abandoned

SAMPLE ID	
CONSTITUENT	CONCENTRATION, unit

NOTE: Values in BOLD indicate an exceedance of NMWQCC groundwater standard.

Figure 4

COC CONCENTRATION MAP
WINGATE GAS FRACTIONATING PLANT
ANNUAL GROUNDWATER SAMPLING
GALLUP, NEW MEXICO
ConocoPhillips Company



TABLES

TABLE 1
MONITORING WELL SPECIFICATIONS AND GROUNDWATER ELEVATIONS
CONOCOPHILLIPS
WINGATE FRACTIONATING PLANT
MCKINLEY COUNTY, NEW MEXICO

<i>Well ID</i>	<i>Total Depth</i>	<i>Surface Elevation</i>	<i>Screen Interval</i>	<i>Date Measured</i>	<i>Depth to Groundwater</i>	<i>Relative Water Level</i>
MW-2	45	6585.91	20-45	06/28/2011	3.94	6581.97
MW-3	45	6590.08	20-45	06/28/2011	4.69	6585.39
WMR-1	45	6585.13	20-45	06/28/2010	5.74	6579.39
WMW-1	15	6597.13	5-15	06/28/2011	5.2	6591.93
WMW-2	20	6594.88	5-20	06/28/2011	4.95	6589.93
WMW-3	20	6594.92	5-20	06/28/2011	6.35	6588.57
WMW-4	20	6595.49	5-20	06/28/2011	7.03	6588.46
WMW-5	20	6597.11	5-20	06/28/2011	5.4	6591.71
WMW-6	35	6603.86	20-35	06/28/2011	9.61	6594.25
WMW-7	38	6594.7	16-38	06/28/2011	7.74	6586.96
WMW-8	38	6594.05	17-38	06/28/2011	6.41	6587.64

Notes:

1. bgs - below ground surface
2. ft - feet
3. msl - mean sea level
4. MW - Monitor Well
5. WMR - Redrilled Monitor Well
6. TOC - top of casing
7. WMW - Monitor well within the Wingate site boundary

TABLE 2
GROUNDWATER ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS
WINGATE FRACTIONATING PLANT
MCKINLEY COUNTY, NEW MEXICO

		Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (total) (mg/L)	TPH-GRO (mg/L)	Naphthalene (mg/L)	Arsenic (dissolved) (mg/L)	Barium (dissolved) (mg/L)	Cadmium (dissolved) (mg/L)	Calcium (mg/L)	Chromium (dissolved) (mg/L)	Iron (mg/L)	Iron (dissolved) (mg/L)	Lead (dissolved) (mg/L)	Lead (mg/L)	Magnesium (dissolved) (mg/L)	Manganese (dissolved) (mg/L)	Manganese (mg/L)	Mercury (mg/L)	Selenium (dissolved) (mg/L)	Silver (dissolved) (mg/L)	Sodium (dissolved) (mg/L)	Alkalinity (mg/L)	BOD (mg/L)	Chloride (mg/L)	COD (mg/L)	Nitrate (as N) (mg/L)	pH	Sulfate (mg/L)	Total Coliform (colonies/100 mL)	Total dissolved solids (TDS) (mg/L)		
MW-2	5/14/2003	<0.001	<0.001	<0.001	<0.002	--	<0.0096	<0.01	0.21	<0.002	14.70	<0.005	--	--	<0.003	--	7.9	--	--	--	--	418	770	--	64.4	--	--	102	--	1140	--	860		
	9/24/2004	<0.005	<0.007	<0.008	<0.008	<	<0.0099	0.0131	0.126	<0.0076	6.30	<0.0025	--	--	<0.0100	--	2.96	--	--	--	<0.00028	<0.0059	<0.0020	321	718	<5.0	29.6	26.70	<0.40	8.3	4.4	<1.0	878	
	6/21/2005	<0.005	<0.007	<0.008	<0.008	--	<0.001	0.0196	0.141	<0.0097	6.45	<0.0048	--	--	<0.0084	--	3.14	--	--	--	<0.00062	<0.0094	<0.0020	310	708	<2.5	38.9	32.40	<0.40	8.2	18.6	<1.0	908	
	6/21/2006	<0.005	<0.007	<0.008	<0.008	--	<0.001	0.0212	0.141	<0.0091	7.16	<0.0023	--	--	<0.0069	--	e	--	--	--	<0.00056	<0.0094	<0.0016	384	712	<5.8	38.6	28.30	<0.25	8.2	22.9	<1.0	988	
	6/19/2007	<0.005	<0.007	<0.008	<0.008	--	<0.001	0.0190	0.139	<0.0090	6.73	<0.0023	--	--	<0.0069	--	3.41	--	--	--	<0.00056	<0.0094	<0.0016	284	708	<3.8	32.0	29.0	1.3	8.3	13.3	<1.0	888	
	7/1/2008	<0.005	<0.005	<0.005	<0.005	--	<0.005	0.00783	0.223	<0.005	<0.005	13.2	<0.005	0.601	--	<0.005	--	9.6	--	--	0.354	<0.0002	<0.005	<0.005	361	626	<2.0	62.9	7.23	<0.5	7.77	125	<1.0	1050
	6/23/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	0.0115	0.255	<0.005	14.5	<0.005	0.611	--	<0.005	--	8.18	--	--	0.314	<0.0002	<0.005	<0.005	403	580	<2	57.3	40	<0.5	7.94	113	7	1030	
	6/21/2010	<0.001	<0.001	<0.001	<0.001	--	<0.0053	0.008	0.210	<0.005	13.2	<0.005	0.175	--	<0.005	--	7.75	0.317	--	--	<0.002	<0.001	<0.005	396	690	<2.0	57.1	9.52	0.555	107	<1	1360		
MW-3	6/29/2011	<0.0010	<0.0010	<0.0010	<0.0030	--	<0.0050	0.0094	0.205	<0.004	--	<0.01	0.175	--	<0.003	--	7.45	0.33	--	--	<0.005	<0.001	<0.005	363	664	<2.0	58.0	<2.0	0.50	7.81	122	<1.0	1010	
	5/14/2003	<0.001	<0.001	<0.001	<0.002	--	<0.0096	<0.01	<0.2	<0.002	28.70	<0.005	--	--	<0.0100	--	13.5	--	--	--	<0.00028	<0.0059	<0.0020	149	428	<4.0	19.2	<	<0.5	--	15.5	--	542	
	9/24/2004	<0.005	<0.007	<0.008	<0.008	--	<0.001	<0.0047	0.150	<0.0076	27.9	<0.0025	--	--	<0.0100	--	13.4	--	--	--	<0.00062	<0.0094	<0.0020	156	419	5.2	19.6	<1.4	<0.40	7.8	14.6	<1.0	493	
	6/21/2005	<0.005	<0.007	<0.008	<0.008	--	<0.001	0.0108	0.160	<0.0097	26.6	<0.0048	--	--	0.0084	--	12.8	--	--	--	<0.00056	<0.0094	<0.0016	144	415	<2.2	20.6	7.4	<0.40	7.6	13.3	<1.0	488	
	6/21/2006	<0.005	<0.007	<0.008	<0.008	--	<0.001	<0.010	0.16	<0.0091	27.4	<0.0023	--	--	<0.0069	--	13.3	--	--	--	<0.00056	<0.0094	<0.0016	161	394	<2.0	19.5	6.8	<0.25	7.7	14.9	<1.0	507	
	6/19/2007	<0.005	<0.007	<0.008	<0.008	--	<0.001	<0.010	0.143	<0.0090	28.4	<0.0023	--	--	<0.0069	--	13.5	--	--	--	<0.00056	<0.0094	<0.0016	170	417	<3.5	22.1	19.7	<0.25	7.7	17.3	--	510	
	7/1/2008	<0.005	<0.005	<0.005	<0.005	--	<0.005	0.0388	0.307	<0.005	27.5	<0.005	4.66	--	<0.005	--	13.2	--	--	1.97	<0.002	<0.005	<0.005	151	382	<2.0	19.3	7.06	<1	7.64	15.4	12	538	
	6/23/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	0.00654	0.178	<0.005	29.5	<0.005	0.255	--	<0.005	--	14.5	--	--	0.703	<0.002	<0.005	<0.005	172	339	<2	23.6	7.5	<0.5	7.74	26.5	<1	519	
WMR-1	6/23/2010	<0.001	<0.001	<0.001	<0.001	--	<0.0054	<0.0050	0.144	<0.005	27.6	<0.005	<0.02	--	<0.005	--	13.7	0.480	--	--	<0.002	<0.005	<0.005	162	148	<2.0	20.5	<2.0	7.5	<0.5	7.31	18.8	<1	600
	6/28/2011	<0.0010	<0.0010	<0.0010	<0.0030	--	<0.0050	<0.0050	<0.2	<0.004	--	<0.01	<0.1	--	<0.003	--	14	0.525	--	--	<0.005	<0.001	<0.005	165	320	<2.0	23.6	<2.0	<0.50	7.62	18.7	<1.0	514	
	7/31/2003	<0.005	<0.007	<0.008	<0.008	<	--	0.0114	1.87	<0.0087	92.4	0.0522	--	--	0.0562	--	46.1	--	--	--	<0.00016	0.0086	<0.0018	397	725	9.2	154	32.1	<0.40	7.9	147	--	1340	
	9/24/2004	<0.005	<0.007	<0.008	<0.008	--	<0.001	<0.0047	0.252	<0.0076	12.5	<0.0025	--	--	<0.0100	--	7.56	--	--	--	<0.00028	<0.0059	<0.0020	291	553	11.0	30.5	20.6	<0.40	8.0	27.0	<1.0	712	
	6/21/2005	<0.005	<0.007	<0.008	<0.008	--	<0.001	<0.0093	0.191	<0.0097	10.2	<0.0048	--	--	<0.0084	--	6.02	--	--	--	<0.00062	<0.0094	<0.0020	278	611	<3.5	30.5	12.9	<0.40	7.9	38.0	<1.0	775	
	6/21/2006	<0.005	<0.007	<0.008	<0.008	--	<0.001	<0.01	0.221	<0.0091	11.1	<0.0023	--	--	<0.0069	--	6.61	--	--	--	<0.00056	<0.0094	<0.0016	317	611	<5.0	24.3	16.7	0.26	8.1	43.6	<1.0	684	
	6/19/2007	<0.005	<0.007	<0.008	<0.008	--	<0.001	<0.01	0.228	<0.0090	31.30	0.0176	--	--	0.0126	--	15.2	--	--	--	0.00058	<0.0094	<0.0016	331	705	15.9	34.1	88.5	<0.25	8.2	58.8	<1.0	886	
	7/1/2008	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	0.225	<0.005	10.90	<0.005	3.0	--	<0.005	--	6.53	--	--	0.369	<0.0002	<0.005	<0.005	299	579	<2.0	29.6	9.41	<1	8.1	37.9	<1.0	865	
WMW-1	6/24/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	0.488	<0.005	19.70	0.00666	--	9.07	<0.005	--	7.89	--	--	0.577	<0.0002	<0.005	<0.005	332	600	<2.87	25.2	17.5	<0.5	7.96	39.9	10	793	
	6/21/2010	<0.001	<0.001	<0.001	<0.001	--	<0.0053	<0.0050	0.176	<0.0030	8.33	<0.0050	0.0306	--	<0.0050	--	5.14																	

TABLE 2
GROUNDWATER ANALYTICAL RESULTS SUMMARY
CONOCOPHILLIPS
WINGATE FRACTIONATING PLANT
MCKINLEY COUNTY, NEW MEXICO

		Benzene	Toluene	Ethylbenzene	Xylenes (total)	TPH-GRO	Naphthalene	Arsenic (dissolved)	Barium (dissolved)	Cadmium (dissolved)	Calcium	Chromium (dissolved)	Iron (dissolved)	Iron	Lead (dissolved)	Lead	Magnesium (dissolved)	Manganese (dissolved)	Manganese	Mercury	Selenium (dissolved)	Silver (dissolved)	Sodium (dissolved)	Alkalinity	BOD	Chloride	COD	Nitrate (as N)	pH	Sulfate	Total Coliform (colony/100 mL)	Total dissolved solids (TDS) (mg/L)
WMW-5	5/14/2003	<0.0001	<0.0007	<0.0001	<0.0002	--	<0.0095	<0.01	<0.2	<0.002	332	<0.005	--	--	<0.003	--	98	--	--	--	--	--	1310	895	--	598	--	2380	--	--	5530	
	7/30/2003	<0.0005	<0.0007	<0.0008	<0.0008	<	<0.001	<0.0047	0.0117	<0.0076	186	<0.0025	--	--	<0.0100	--	48.8	--	--	0.000044	<0.0059	<0.0020	915	785	--	307	--	--	--	3410		
	9/23/2004	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0137	<0.0097	187	<0.0048	--	--	<0.0084	--	50.5	--	--	<0.00062	<0.0094	<0.0020	834	693	--	334	--	7.1	1400	3300		
	6/20/2005	<0.0007	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0076	<0.0091	144	<0.0023	--	--	<0.0069	--	38.7	--	--	<0.000056	<0.0094	<0.0016	730	680	--	224	--	<0.25	7.1	1210	2880	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0213	<0.0090	253	<0.0023	--	--	<0.0069	--	69	--	--	<0.000056	<0.0094	<0.0016	1170	796	--	383	--	<0.25	7.2	1730	4380	
	6/18/2007	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0163	<0.0090	137	<0.0023	0.562	--	<0.0069	--	41.4	--	1.12	<0.0002	<0.005	<0.005	811	548	--	232	--	<0.5	7.15	1270	3020	
	6/30/2008	<0.0005	<0.0005	<0.0005	<0.0005	--	<0.005	<0.005	<0.005	<0.005	172	<0.0025	0.346	--	<0.025	--	49.4	--	0.693	<0.0002	<0.0025	<0.0025	912	682	--	259	--	<0.5	7.37	1370	3260	
WMW-6	6/22/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.025	<0.025	<0.025	172	<0.0025	0.346	--	<0.025	--	51.3	1.13	--	<0.002	<0.01	<0.002	862	165	--	275	--	0.608	7.21	1430	3380	
	6/22/2010	<0.001	<0.001	<0.001	<0.001	--	<0.0056	<0.005	0.0098	<0.005	170	<0.005	<0.02	--	<0.005	--	38.7	--	--	<0.002	<0.01	<0.01	732	664	--	238	--	7.22	1470	3130		
	6/30/2011	<0.0010	<0.0010	<0.0010	<0.0030	--	<0.0050	<0.005	<0.2	<0.004	--	<0.01	<0.1	--	<0.003	--	38.7	0.336	--	--	<0.005	<0.01	732	664	--	238	--	7.22	1470	3130		
	9/24/2004	<0.0005	<0.0007	<0.0008	<0.0008	<	<0.001	<0.0047	0.0517	<0.0076	34.4	<0.0025	--	--	<0.0100	--	13.2	--	--	<0.00028	<0.0059	<0.0020	315	425	--	57.5	--	<0.40	7.8	285	1020	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0490	<0.0097	35.9	<0.0048	--	--	<0.0084	--	13.4	--	--	<0.00062	<0.0094	<0.0020	294	428	--	58.8	--	<0.40	7.7	290	952	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.049	<0.0091	38.1	<0.0023	--	--	<0.0069	--	14.1	--	--	<0.000056	0.0094	<0.0016	300	488	--	58.9	--	<0.25	7.7	293	966	
	6/18/2007	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0637	<0.0090	44.3	<0.0023	--	--	<0.0069	--	15.5	--	--	<0.000056	0.0094	<0.0016	320	449	--	66.7	--	<0.25	7.7	280	1070	
WMW-7	7/1/2008	<0.005	<0.005	<0.005	<0.005	--	<0.005	0.0119	2.34	<0.005	194	0.8663	--	77	--	0.8545	--	56.3	--	2.76	<0.0002	<0.005	<0.005	317	451	--	67.5	--	<1	7.82	328	1500
	6/23/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	0.0679	<0.005	41.1	<0.005	--	--	<0.005	--	14.4	0.162	--	<0.0002	<0.005	<0.005	339	389	--	57.2	--	<0.5	7.87	276	1020	
	6/23/2010	<0.001	<0.001	<0.001	<0.001	--	<0.0055	<0.005	0.0421	<0.005	41.9	<0.005	0.0445	--	<0.005	--	15.5	0.0193	--	<0.002	<0.01	<0.005	304	128	--	62.4	--	<0.5	7.42	280	1220	
	6/29/2011	<0.0010	<0.0010	<0.0010	<0.0030	--	<0.0050	<0.005	<0.2	<0.004	--	<0.01	0.232	--	<0.003	--	16.2	0.053	--	--	<0.005	<0.01	308	446	--	70.9	<20	<0.50	7.48	374	1060	
	9/24/2004	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0047	0.179	<0.0076	35.5	0.0074	--	--	<0.0100	--	15.8	--	--	<0.00028	<0.0059	<0.0020	362	526	--	63.7	--	<0.40	7.7	309	1200	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0394	<0.0097	48.0	<0.0048	--	--	<0.0084	--	25.4	--	--	<0.00062	<0.0094	<0.0020	803	630	--	170	--	<0.40	7.7	1120	2590	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0315	<0.0091	42.2	<0.0023	--	--	<0.0069	--	22.2	--	--	<0.000056	<0.0094	<0.0016	776	589	--	234	--	<0.25	7.6	1080	2360	
WMW-8	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0315	<0.0091	48.0	<0.0023	--	--	<0.0069	--	22.2	--	--	<0.000056	<0.0094	<0.0016	776	589	--	234	--	<0.25	7.6	1080	2360	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0315	<0.0091	48.0	<0.0023	--	--	<0.0069	--	22.2	--	--	<0.000056	<0.0094	<0.0016	776	589	--	234	--	<0.25	7.6	1080	2360	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0315	<0.0091	48.0	<0.0023	--	--	<0.0069	--	22.2	--	--	<0.000056	<0.0094	<0.0016	776	589	--	234	--	<0.25	7.6	1080	2360	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0315	<0.0091	48.0	<0.0023	--	--	<0.0069	--	22.2	--	--	<0.000056	<0.0094	<0.0016	776	589	--	234	--	<0.25	7.6	1080	2360	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0315	<0.0091	48.0	<0.0023	--	--	<0.0069	--	22.2	--	--	<0.000056	<0.0094	<0.0016	776	589	--	234	--	<0.25	7.6	1080	2360	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0315	<0.0091	48.0	<0.0023	--	--	<0.0069	--	22.2	--	--	<0.000056	<0.0094	<0.0016	776	589	--	234	--	<0.25	7.6	1080	2360	
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0315	<0.0091	48.0	<0.0023	--	--	<0.0069	--	22.2	--	--	<0.000056	<0.0094	<0.0016	776	589	--	234	--	<0.25	7.6	1080	2360	
WMW-8	6/18/2007	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0339	<0.0090	42.9	<0.0023	--	--	<0.0069	--	21.8	--	--	<0.000056	<0.0094	<0.0016	478	514	--	92.4	--	<0.5	7.34	224	1580	
	6/30/2008	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	0.198	<0.005	50.5	0.0137	--	153	0.00946	--	24.9	0.2	--	<0.0002	<0.025	<0.025	509	520	--	80.4	--	<0.5	7.56	439	1410	
	6/22/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.025	0.0371	<0.025	41.1	<0.0025	0.284	--	<0.025	--	16.9	0.2	--	<0.002	<0.025	<0.025	417	183	--	71.5	--	0.500	7.38	353	1520	
	6/23/2010	<0.001	<0.001	<0.001	<0.0030	--	<0.0050	<0.005	0.2	<0.004	--	<0.01	<0.1	--	<0.003	--	19.5	0.344	--	<0.002	<0.01	<0.005	202	135	--	23.1	--	<0.5	7.28	185	735	
	7/1/2011	<0.0010	<0.0010	<0.0010	<0.0030	--	<0.0050	<0.005	0.2	<0.004	--	<0.01	<0.1	--	<0.003	--	19.5	0.344	--	<0.002	<0.01	<0.005	202	135	--	23.1	--	<0.5	7.28	185	735	
	9/23/2004	<0.003	<0.004	<0.004	<0.004	--	<0.001	<0.0047	0.0730	<0.0076	1080	0.0029	--	--	<0.0100	--	625	--	--	<0.000028	0.0061	<0.0020	12400	148	18.9	19600	150	<0.40	9.8	6690	>200.5	46200
	6/20/2005	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0731	<0.0097	1010	<0.0048	--	--	<0.0084	--	488	--	--	<0.00062	<0.0094	<0.0020	9560	110	--	13000	--	<0.40	10.4	5090	31100	
East Pond	6/21/2005	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	>200.5	38000
	6/21/2006	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	0.0113	0.117	<0.0091	1400	<0.0023	--	--	<0.0069	--	889	--	--	<0.000056	<0.0094	<0.0016	9640	156	--	13000	147	<0.25	10.4	9180	34800	
	6/19/2007	<0.0005	<0.0007	<0.0008	<0.0008	--	<0.001	<0.0093	0.0667	<0.0090	251	<0.0023	--	--	<0.0069	--	161	--	--	<0.000056	<0.0094	<0.0016	4340	103	--	5720	<9.8	1.3	9.8	5860	>200.5	19700
	7/2/2008	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	0.0813	<0.0090	1070	<0.0023	<0.02	--	<0.005	--	736	<0.005	--	<0.002	<0.005	<0.005	3890	76	--	4880	94	<5.0	10	7690	<1.0	16200
	6/24/2009	<0.005	<0.005	<0.005	<0.005	--	<0.005	<0.005	0.0443	<0.005	849	0.00521	<0.02	--	<0.005	--	605	<0.025	--	<0.0002	<0.01	<0.005	2510	88	--	2270	67.5	<0.5	10	5360	4	13000
	6/24/2009	<0.005	<0.005	<0.005	<0.005	--																										

Notes:

MW = monitoring well

NMWQCC = New Mexico Water Quality Control Commission

Constituents in **BOLD** are in excess of NMWQCC groundwater quality standards

mg/L = milligrams per liter (parts per million)

< 1.0 = Below laboratory detection limit of 1.0 mg/L

NA = not analyzed

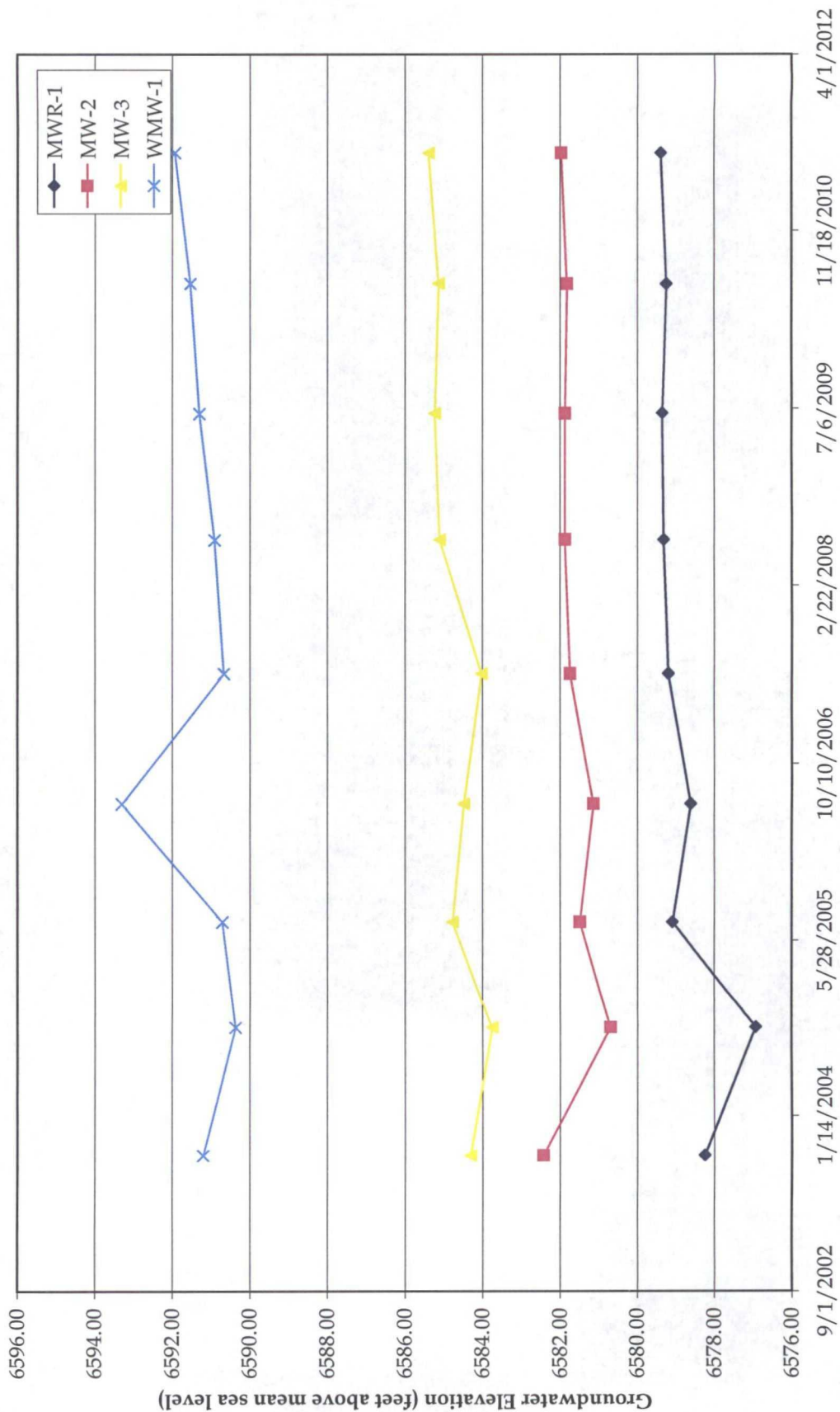
* = Results reported for total metals analysis, results can not be compared to NIMH

APPENDIX A

ANALYTICAL CONCENTRATIONS VS. TIME GRAPHS AND SITE HYDROGRAPHS

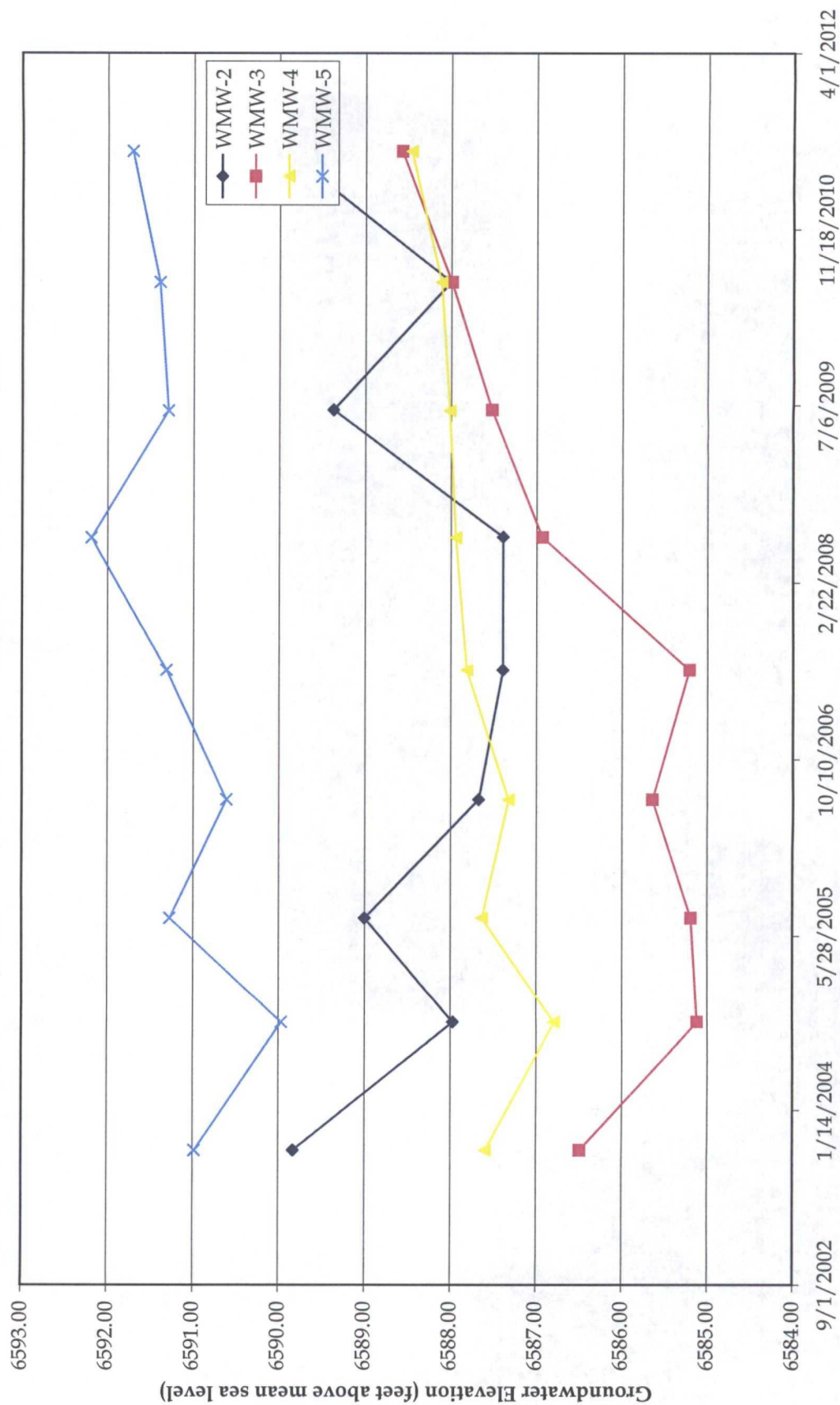
ConocoPhillips Company
Wingate Gas Fractionating Plant

Groundwater Elevations vs. Time in Wingate Monitor Wells



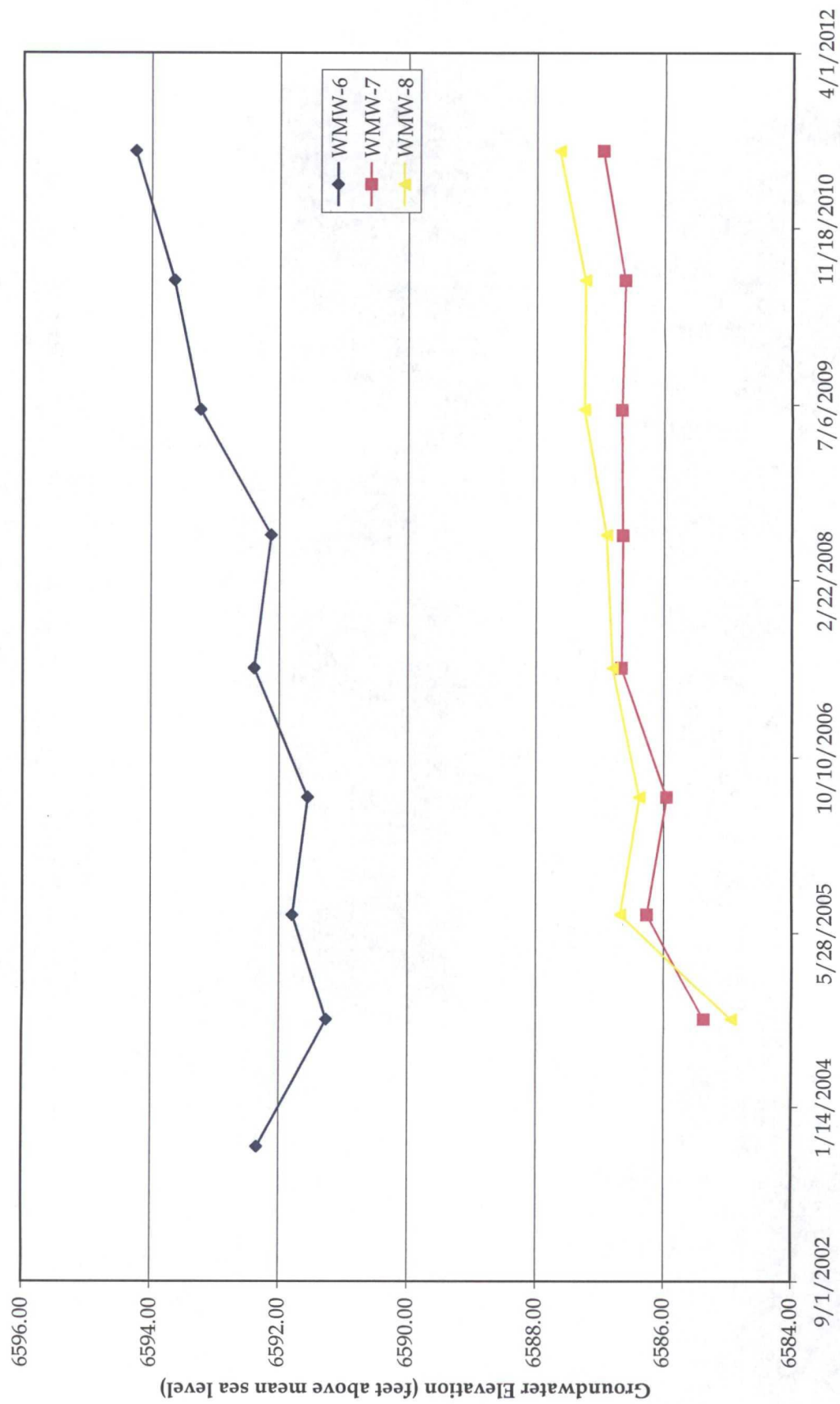
ConocoPhillips Company
Wingate Gas Fractionating Plant

Groundwater Elevations vs. Time in Wingate Monitor Wells



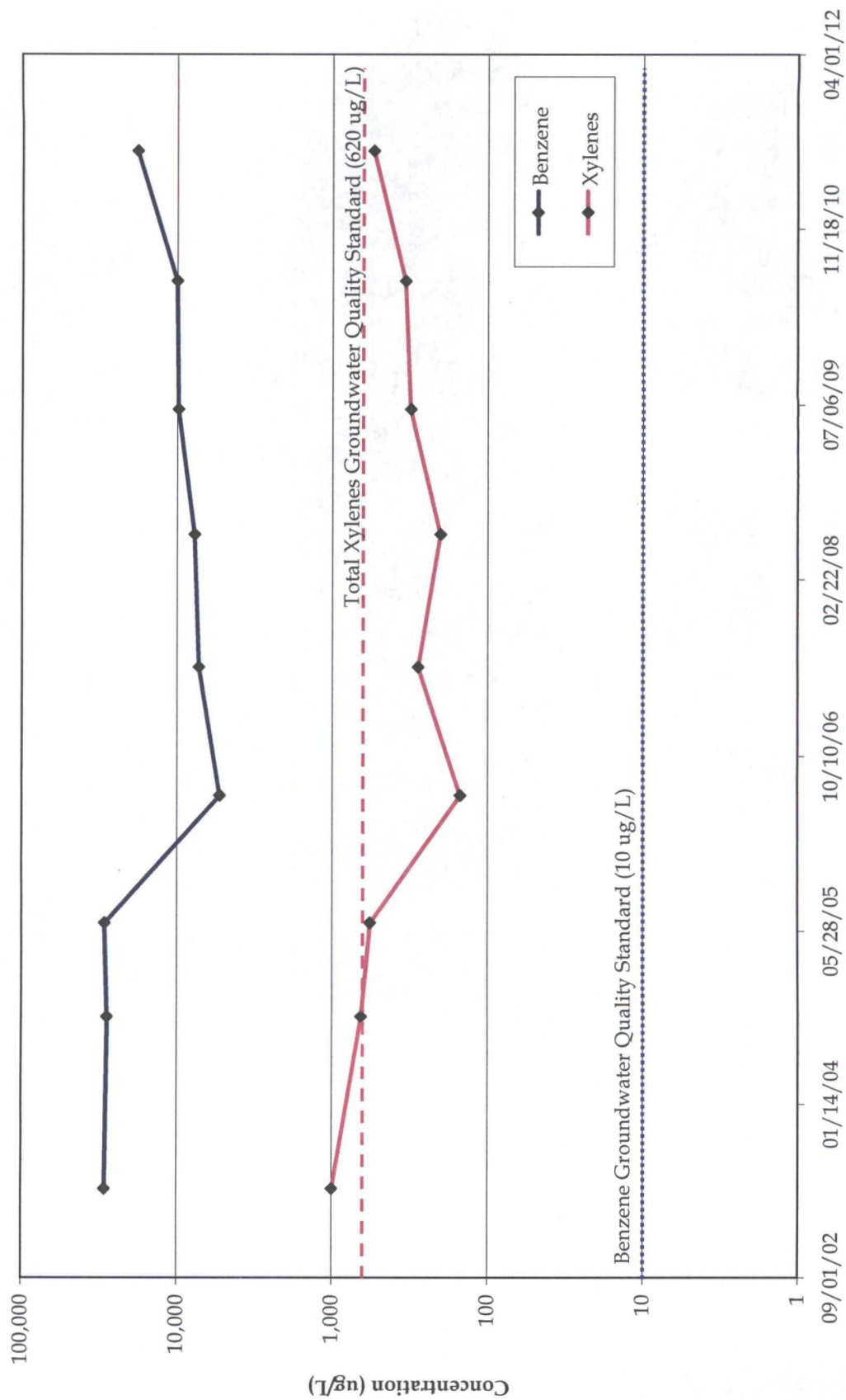
ConocoPhillips Company
Wingate Gas Fractionating Plant

Groundwater Elevation vs. Time in Wingate Monitor Wells



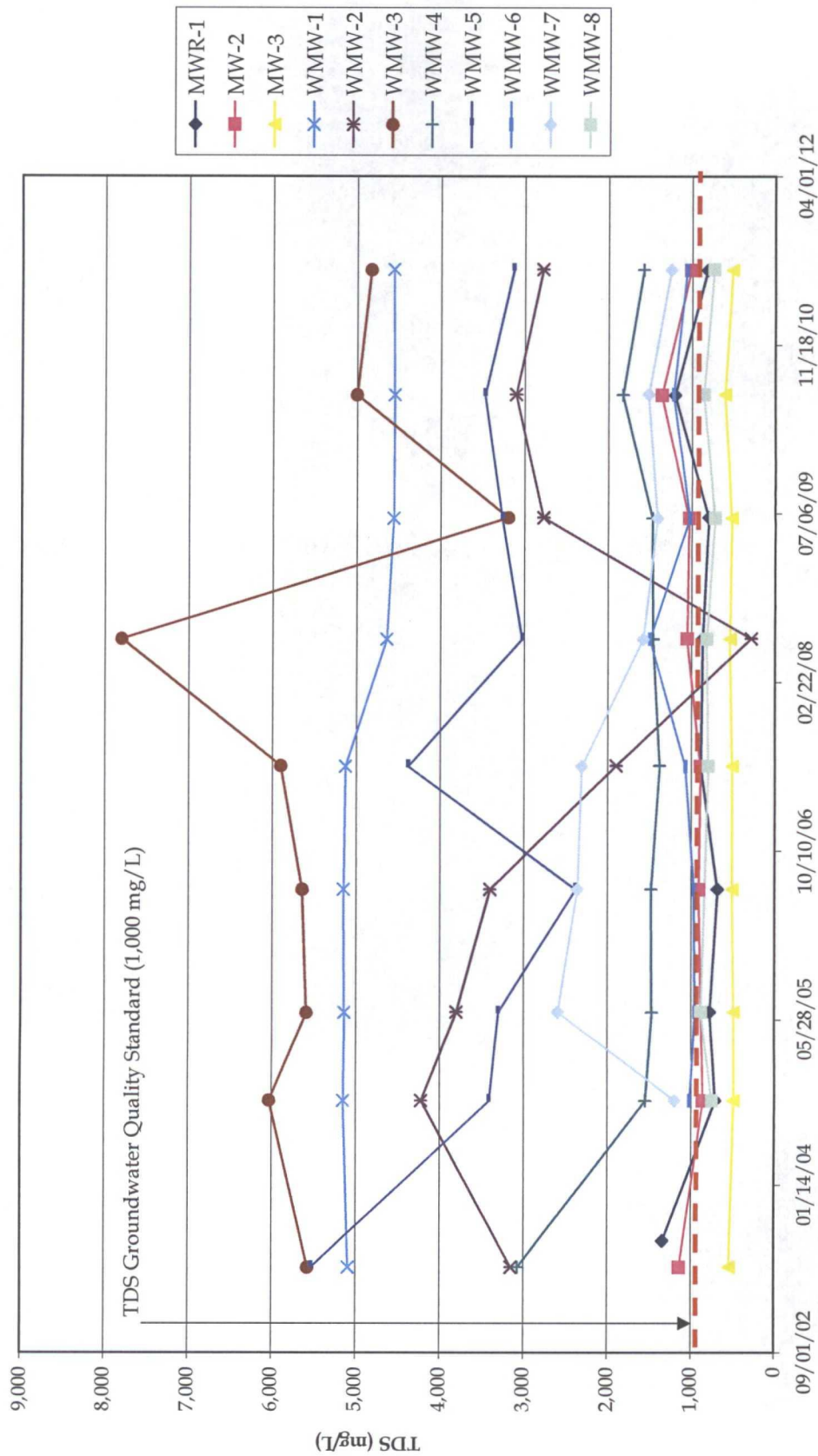
ConocoPhillips Company
Wingate Gas Fractionating Plant

Benzene and Total Xylenes vs. Time in WMW-2



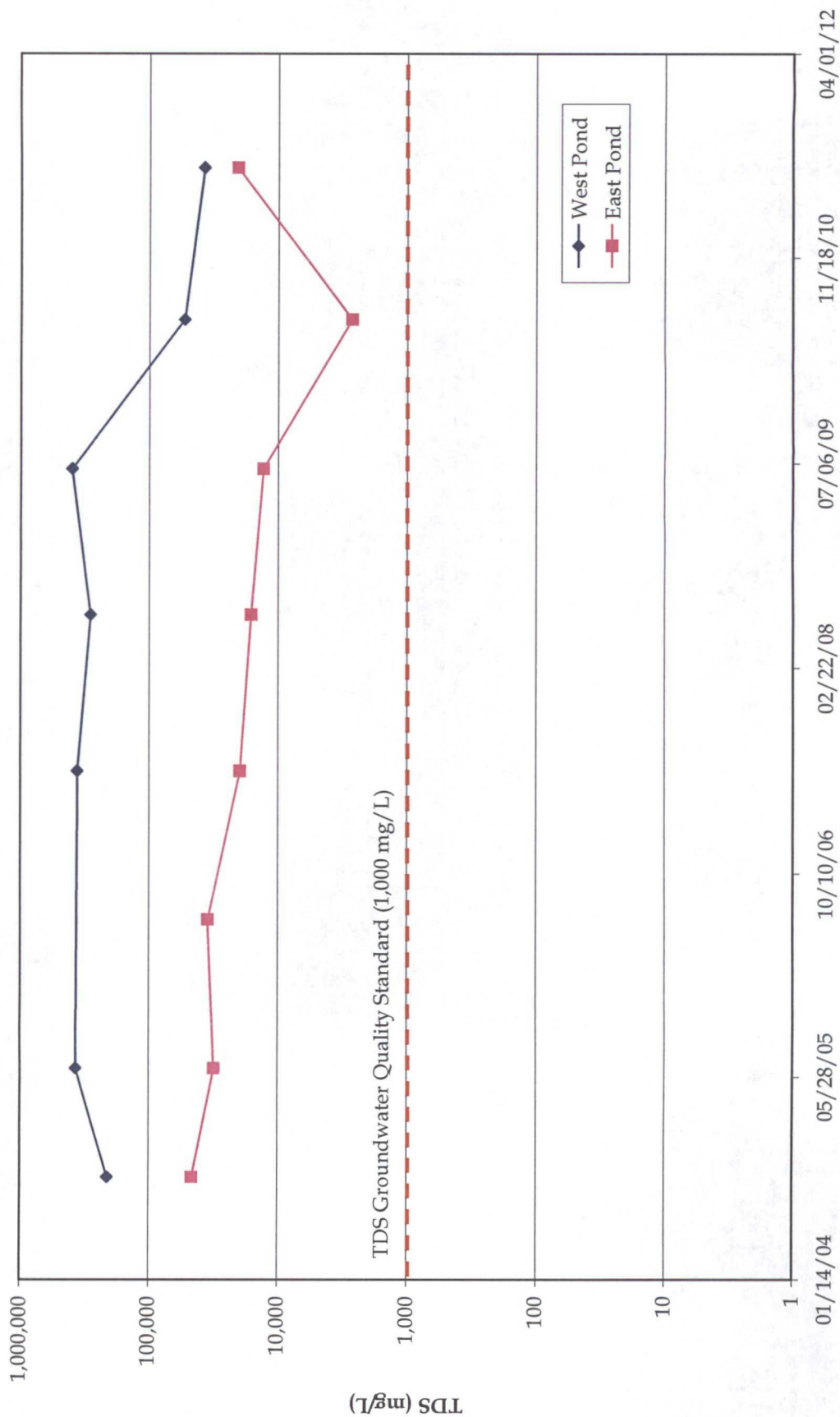
ConocoPhillips Company
Wingate Gas Fractionating Plant

Total Dissolved Solids vs. Time in Wingate Monitor Wells



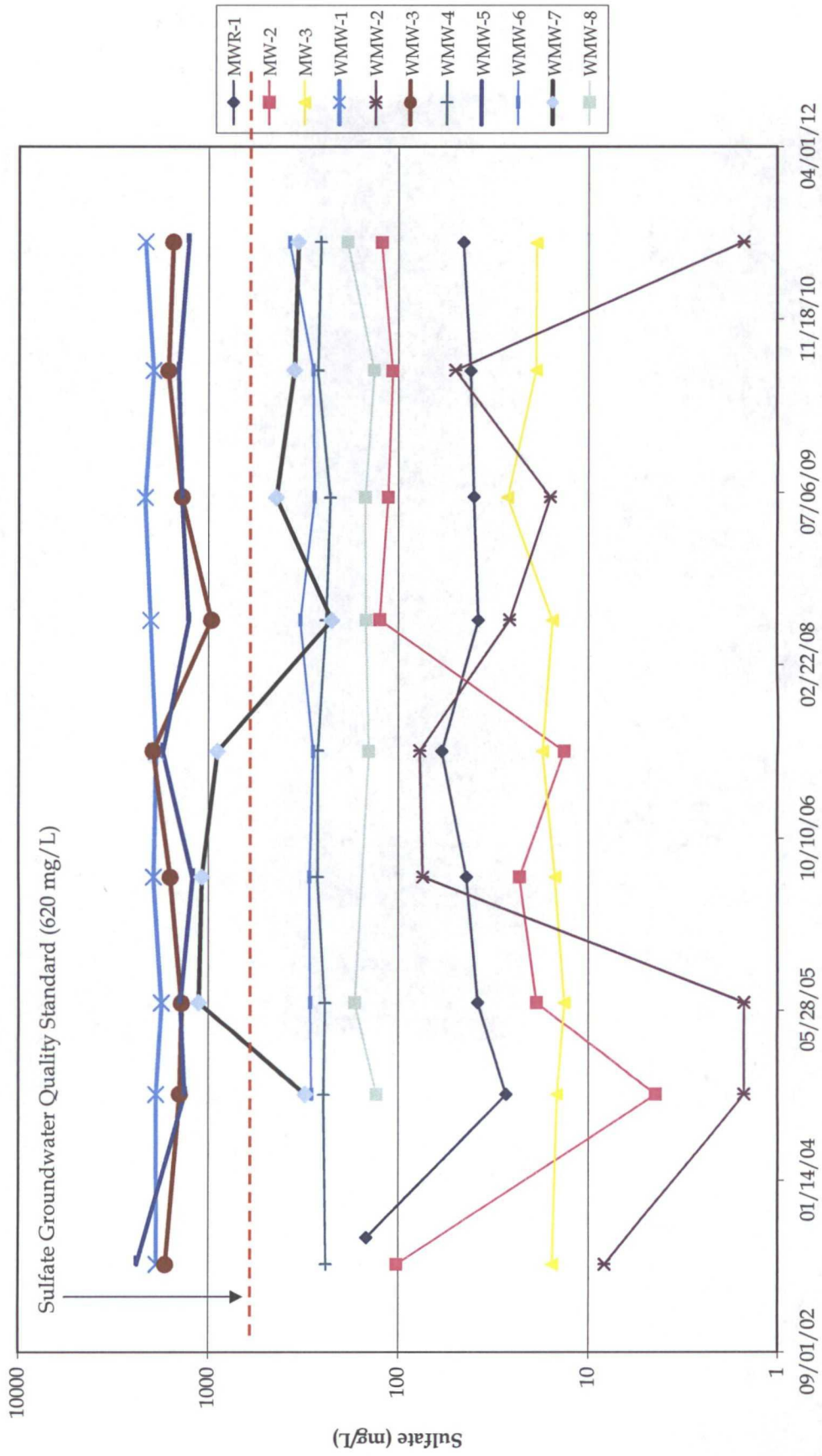
ConocoPhillips Company
Wingate Gas Fractionating PlantCon

Total Dissolved Solids vs. Time in Wingate Evaporation Ponds



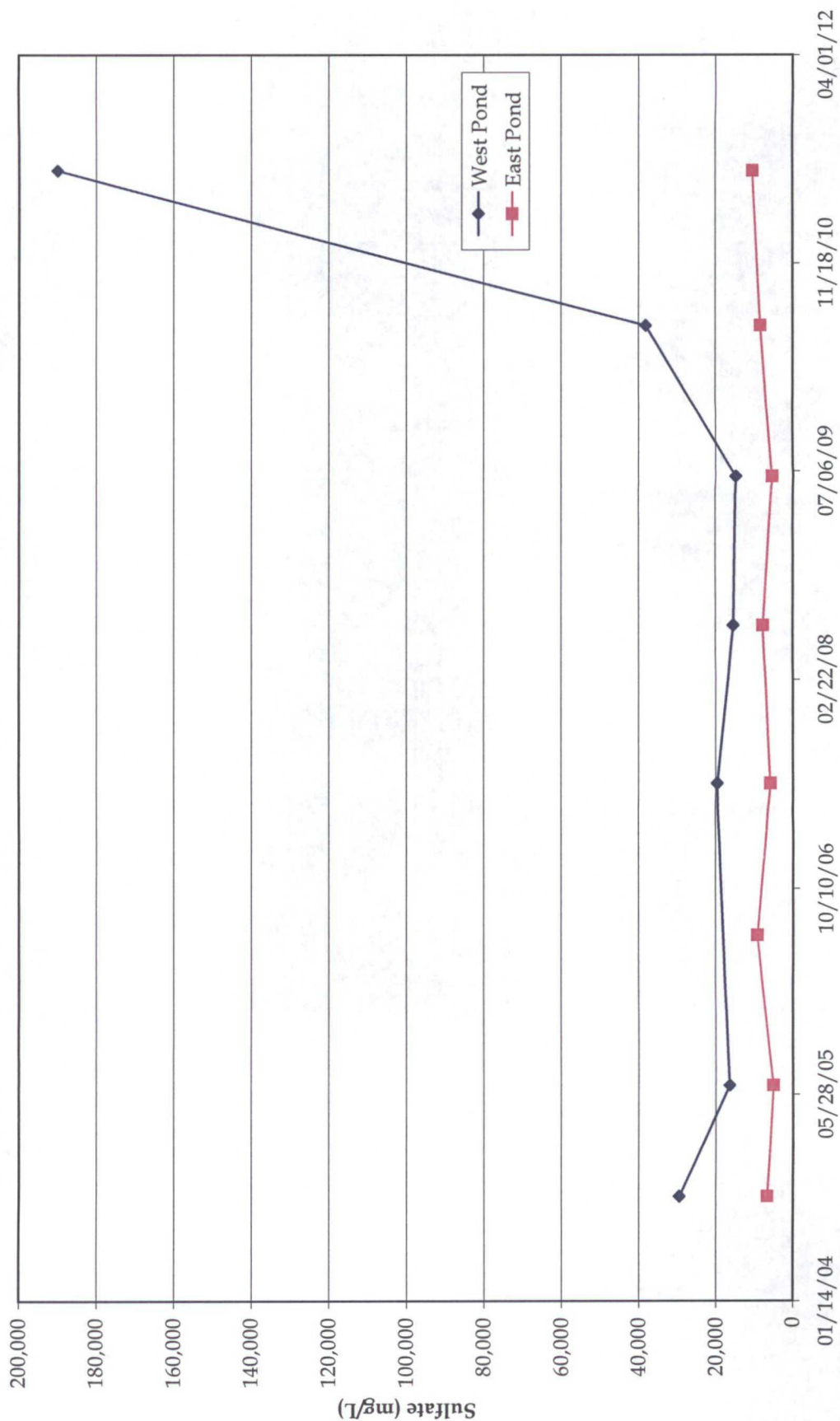
ConocoPhillips Company
Wingate Gas Fractionating Plant

Sulfate (mg/L) vs Time in Wingate Monitor Wells



ConocoPhillips Company
Wingate Gas Fractionating Plant

Sulfate vs. Time in Wingate Evaporation Ponds



APPENDIX B

GROUNDWATER SAMPLING FIELD FORMS

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: sampling Wingate Fractionating Plant PROJECT NO.: 075006
 DATE OF WELL DEVELOPMENT: 6-28-2011
 DEVELOPMENT CREW MEMBERS: C. Matthews, K. Blanchard, T. Fish
 PURGING METHOD: Submersible Pump
 SAMPLE NO.: GW-075006-062811-CFM-001
 SAMPLE TIME: 1130

WELL INFORMATION

WELL NUMBER: MW-3
 WELL TYPE (diameter/material): 4" PVC
 MEASURING POINT ELEVATION: _____
 STATIC WATER DEPTH: 4.69
 BOTTOM DEPTH: 46.5
 WATER COLUMN LENGTH: 41.81
 SCREENED INTERVAL: 20-45
 WELL VOLUME: 41.81 x .70 = 29.267

ELEVATION: _____
 ELEVATION: _____

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons
 For 2-inch diameter well: 1 foot = 0.16 US gallons
 For 4-inch diameter well: 1 foot = 0.70 US gallons

$29.267 \times 3 = 87.80$

1 Drum
37 gallons

Total Purge Volume
1.72/in
gall in drum

VOLUME PURGED (volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE: C°

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES: DO% / DO mg/L

COLOR:

ODOR: ORP

COMMENTS:

Time: LIMITS	11:06 1	11:11 2	11:16 3	11:21 4	11:26 5	TOTAL AVERAGE
	64	67.5	69.5	72.5	75	
	7.49	7.45	7.48	7.47	7.47	
	12.64	12.85	12.91	12.96	12.93	
	657	660	662	665	667	
	11.4/1.20	10.8/1.14	10.4/1.10	10.7/1.13	10.1/1.12	
	clear	clear	clear	clear	clear	
	-35.0	-36.3	-40.4	-43.3	-45.9	

COPIES TO: _____

Pond Sampling

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Pond Sampling PROJECT NO.: 075006
 DATE OF WELL DEVELOPMENT: 6-28-11
 DEVELOPMENT CREW MEMBERS: Christine Matthews & Tim Fish
 PURGING METHOD: cup & rod w/ disposable cup
 SAMPLE NO.: SW-075006-062811-CFM-002
 SAMPLE TIME: 1150

WELL INFORMATION

WELL NUMBER: east pond
 WELL TYPE (diameter/material): _____
 MEASURING POINT ELEVATION: _____
 STATIC WATER DEPTH: _____ ELEVATION: _____
 BOTTOM DEPTH: _____ ELEVATION: _____
 WATER COLUMN LENGTH: _____
 SCREENED INTERVAL: _____
 WELL VOLUME: _____

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons
 1 meter = 0.5 liters
 For 2-inch diameter well: 1 foot = 0.16 US gallons
 1 meter = 2 liters
 For 4-inch diameter well: 1 foot = 0.70 US gallons
 1 meter = 8.2 liters

* Notes: pond is full, H₂O
 is clear to brown w/
 green algae. sampled in
 area where H₂O was
 clear & free of plant debris

VOLUME PURGED
(volume/total volume):

FIELD pH:

FIELD TEMPERATURE:

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR:

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/ AVERAGE

COPIES TO:

Pond Sampling

~~WELL DEVELOPMENT AND STABILIZATION FORM~~

PROJECT NAME:

DATE OF WELL DEVELOPMENT:

DEVELOPMENT CREW MEMBERS:

PURGING METHOD:

SAMPLE NO.:

SAMPLE TIME:

WELL INFORMATION

WELL NUMBER:

WELL TYPE (diameter/material)

MEASURING POINT ELEVATION:

STATIC WATER DEPTH:

BOTTOM DEPTH:

WATER COLUMN LENGTH:

SCREENED INTERVAL:

WELL VOLUME:

Note: For 1-inch diameter well:

For 2-inch diameter well:

For 4-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

1 foot = 0.16 US gallons

1 meter = 2 liters

1 foot = 0.70 US gallons

1 meter = 8.2 liters

PROJECT NO.:

ELEVATION:

ELEVATION:

* Notes: all of pond is dry except for 2 wet spots with ~ 2 to 3 in of standing water. Salts present along floor of dry pond.

VOLUME PURGED
(volume/total volume):

FIELD pH:

FIELD TEMPERATURE:

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR:

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/ AVERAGE

COPIES TO:

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME:

Wingate Plant

PROJECT NO.:

075006

DATE OF WELL DEVELOPMENT:

8-29-11

DEVELOPMENT CREW MEMBERS:

Christine Matthews & Tim Fish

PURGING METHOD:

submersible pump

SAMPLE NO.:

GW-075006-082911-CFM-004

SAMPLE TIME:

0950

pump set @ 30ft.

WELL INFORMATION

WELL NUMBER:

WMW-6

WELL TYPE (diameter/material)

2" PVC

MEASURING POINT ELEVATION:

STATIC WATER DEPTH:

9.61

ELEVATION:

BOTTOM DEPTH:

35.0

ELEVATION:

WATER COLUMN LENGTH:

25.39

SCREENED INTERVAL:

20-35

WELL VOLUME:

Vol = $25.39 \times 0.16 = 4.06$

$\times 3 = 12.19$

Note: For 1-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

For 2-inch diameter well:

1 foot = 0.16 US gallons

1 meter = 2 liters

For 4-inch diameter well:

1 foot = 0.70 US gallons

1 meter = 8.2 liters

TIME: 0945 0947

VOLUME PURGED

(volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE: C°

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR: ORP

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
	12.5	13.5				
	7.82	7.61				
	13.71	13.40				
	1326	1336				
	20.1/2.03	13.6/1.40				
	clear	clear				
	163.0	169.0				

COPIES TO:

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME:

Wingate Plant

PROJECT NO.:

075006

DATE OF WELL DEVELOPMENT:

6-29-11

DEVELOPMENT CREW MEMBERS:

Christine Matthews & Tim Fish

PURGING METHOD:

submersible pump

SAMPLE NO.:

GW-075006-062911-CPM-005

SAMPLE TIME:

1240

Buckets (3gal)
HTT HTT HTT HTT

WELL INFORMATION

WELL NUMBER:

MW-2

WELL TYPE (diameter/material)

4" PVC

MEASURING POINT ELEVATION:

STATIC WATER DEPTH:

3.94

ELEVATION:

BOTTOM DEPTH:

45

ELEVATION:

WATER COLUMN LENGTH:

41.06

SCREENED INTERVAL:

20-45 (95 ft)

WELL VOLUME:

$41.06 \times 0.70 = 29.12$

$29.12 \times 3 = 87.36$

Note: For 1-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

For 2-inch diameter well:

1 foot = 0.16 US gallons

1 meter = 2 liters

For 4-inch diameter well:

1 foot = 0.70 US gallons

1 meter = 8.2 liters

Time: 12:23 12:28 12:33

Total
purge
volume

VOLUME PURGED

(volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE: C°

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR: ORP

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
Gal	48	54	60	(66)		
	7.79	7.79	7.78			
°C	13.01	13.01	12.96			
	130 "	1304	1329			
	11.9/1.24	11.3/1.18	10.5/1.09			
	< 1.0 yellow	1.5 yellow	11.8 yellow			
	-209.0	-213	-213.2			

COPIES TO:

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME:

Wingate Plant

PROJECT NO.:

075006

DATE OF WELL DEVELOPMENT:

Sampling

6-29-11

DEVELOPMENT CREW MEMBERS:

Sampling

Christine Matthews & Tim Fish

PURGING METHOD:

Submersible pump

SAMPLE NO.:

GW-075006-062911-CPM-006

SAMPLE TIME:

#1 1500

Bucket (3 gal)
HT 1

WELL INFORMATION

WELL NUMBER:

COMR-1

WELL TYPE (diameter/material)

2" PVC

MEASURING POINT ELEVATION:

STATIC WATER DEPTH:

5.74

ELEVATION:

BOTTOM DEPTH:

45

ELEVATION:

WATER COLUMN LENGTH:

39.26

SCREENED INTERVAL:

20-45

WELL VOLUME:

$39.26 \times 0.16 = 6.28$

$\times 3 = 18.84$

Note: For 1-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

For 2-inch diameter well:

1 foot = 0.16 US gallons

1 meter = 2 liters

For 4-inch diameter well:

1 foot = 0.70 US gallons

1 meter = 8.2 liters

Final purge

VOLUME PURGED

(volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE: C°

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR: ORP

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
TIME: 1441	14	15	15.75	16.25	17	17.25
	7.83	7.84	7.83	7.84	7.84	7.83
	14.50	14.34	14.35	14.26	14.36	14.39
	1135	1140	1135	1147	1141	1133
	8.3/0.85	8.2/0.83	8.2/0.84	10.2/1.03	9.2/0.94	8.7/0.89
	light brown	light brown	light brown	light brown	light brown	light brown
	-163.9	-174.8	-184.4	-191.1	-193.3	-195.7

1925

COPIES TO:

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME:

Wingate Plant

PROJECT NO.:

075006

DATE OF WELL DEVELOPMENT:

6-30-11

DEVELOPMENT CREW MEMBERS:

Christine Matthews & Tim Fish

PURGING METHOD:

Submersible pump

SAMPLE NO.:

GW-075006-062011-007

SAMPLE TIME:

0855

WELL INFORMATION

WELL NUMBER:

WMW-3

WELL TYPE (diameter/material)

2" pvc

MEASURING POINT ELEVATION:

STATIC WATER DEPTH:

6.35

ELEVATION:

BOTTOM DEPTH:

20.0

ELEVATION:

WATER COLUMN LENGTH:

13.65

SCREENED INTERVAL:

5-20

WELL VOLUME:

$13.65 \times .16 = 2.184$

Note: For 1-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

For 2-inch diameter well:

1 foot = 0.16 US gallons

1 meter = 2 liters

For 4-inch diameter well:

1 foot = 0.70 US gallons

1 meter = 8.2 liters

$\times 3 = 6.55$

Total Purge Volume

VOLUME PURGED

(volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE:

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR: ORP

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
Gal	6	6.5	6.75			
	6.98	7.15				
	11.68	11.47				
	27.1/2.01	23.8/2.52				
	5646	5572				
	Reddish Brown	Reddish Brown				
	152.3	155.2				
		7				

COPIES TO:

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME:

Wingale Plant

PROJECT NO.:

075006

DATE OF WELL DEVELOPMENT:

6-30-11

DEVELOPMENT CREW MEMBERS:

Christine Matthews & Tim Fish

PURGING METHOD:

submersible pump @ 17 ft

SAMPLE NO.:

GW-075006-063011-CPM-008

SAMPLE TIME:

1100

Begin purging @ 10am

WELL INFORMATION

WELL NUMBER:

WMW-5

WELL TYPE (diameter/material)

4" PVC

MEASURING POINT ELEVATION:

5.40

STATIC WATER DEPTH:

20

ELEVATION:

BOTTOM DEPTH:

14.6

ELEVATION:

WATER COLUMN LENGTH:

5-20

SCREENED INTERVAL:

WELL VOLUME:

14.6 5.40 x 7.70 = 10.22

Bucket Count (3 gallons)

Note: For 1-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

For 2-inch diameter well:

1 foot = 0.16 US gallons

1 meter = 2 liters

For 4-inch diameter well:

1 foot = 0.70 US gallons

1 meter = 8.2 liters

X 3 = 30.66

|||||

Total volume purged

VOLUME PURGED

(volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE: 0°

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR: ORP

COMMENTS:

TIME:	1042	1044	1045	1053	1054	6:05
UNITS	1	2	3	4	5	TOTAL/AVERAGE CPM
	20	21	22	25	26	27
	6.90	6.90	6.88	6.96	6.98	6.99
	14.43	14.32	14.25	14.30	14.37	14.73
	3579	3642	3659	3589	3595	3646
	26.5/2.66	27.1/2.75		50.6/5.11	52.3/5.29	55.8/5.26
	clear	clear		clear	clear	clear
	89.9	91.6		101.2	101.3	102.9

meter short off during reading

COPIES TO:

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Sampling

DATE OF WELL DEVELOPMENT: 6-30-11

DEVELOPMENT CREW MEMBERS: Christine Matheos & Tim Fish

PURGING METHOD: Disposable Bailer

SAMPLE NO.: TIME

SAMPLE TIME: NO

PROJECT NO.: 075006
07600
CFM
6-30-11

SW-075006-063011-CFM-009

WELL INFORMATION

WELL NUMBER: WMU-4

WELL TYPE (diameter/material): 2" PVC

MEASURING POINT ELEVATION: _____

STATIC WATER DEPTH: 7.03

ELEVATION: _____

BOTTOM DEPTH: 20

ELEVATION: _____

WATER COLUMN LENGTH: 12.97

SCREENED INTERVAL: 5-20

WELL VOLUME: CFM 7.03 x .16 = 2.08
12.97 x 3 = 6.23

Note: For 1-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

For 2-inch diameter well:

1 foot = 0.16 US gallons

1 meter = 2 liters

For 4-inch diameter well:

1 foot = 0.70 US gallons

1 meter = 8.2 liters

VOLUME PURGED
(volume/total volume): gallons

FIELD pH: _____

FIELD TEMPERATURE: C°

FIELD CONDUCTIVITY: _____

CLARITY/TURBIDITY VALUES: 10% DO mg/L

COLOR: _____

ODOR: ORP

COMMENTS: _____

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
	5 3/4	6 1/4	6 3/4			
	7.70	7.61	7.57			
	13.64	13.61	13.60			
	2028	2020	2017			
	28/2.88	23.6/2.40	22.1/2.27			
	-27.1	-42.2	-50.1			

COPIES TO: _____

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME:

DATE OF WELL DEVELOPMENT:

DEVELOPMENT CREW MEMBERS:

PURGING METHOD:

SAMPLE NO.:

SAMPLE TIME:

WELL INFORMATION

WELL NUMBER:

WELL TYPE (diameter/material)

MEASURING POINT ELEVATION:

STATIC WATER DEPTH:

BOTTOM DEPTH:

WATER COLUMN LENGTH:

SCREENED INTERVAL:

WELL VOLUME:

Note: For 1-inch diameter well:

For 2-inch diameter well:

For 4-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

1 foot = 0.16 US gallons

1 meter = 2 liters

1 foot = 0.70 US gallons

1 meter = 8.2 liters

TIME: 1500 1503 1505 1507

VOLUME PURGED

(volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE:

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR: ORP

COMMENTS:

PROJECT NO.:

Start time
1320

Set @ 33 feet

ELEVATION:

ELEVATION:

Buckets (3 gal)

III III III

Total volume
purged

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
	38	41	43	45	46.5	
	7.36	7.35	7.36	7.36		
	13.83	13.79	13.85	13.85		
	16.16	16.31	16.61	16.57		
	12.4/1.27	12.3/1.28	12.4/1.27	12.3/1.27		
	clear	clear	clear	clear		
	112.4	114.0	112.4	111.8		

COPIES TO:

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: sampling

PROJECT NO.: 075006

DATE OF WELL DEVELOPMENT: 7-1-11

DEVELOPMENT CREW MEMBERS: Christine Matthews & Tim Fish

PURGING METHOD: Disposable Bailer

SAMPLE NO.: 910

SAMPLE TIME: 0855

WELL INFORMATION

WELL NUMBER: WMW-2

WELL TYPE (diameter/material): 2" PVC

MEASURING POINT ELEVATION: _____

STATIC WATER DEPTH: 4.95

ELEVATION: _____

BOTTOM DEPTH: 2.00

ELEVATION: _____

WATER COLUMN LENGTH: 15.05

SCREENED INTERVAL: 5-20

WELL VOLUME: 15.05 x 16 = 2,408

Note: For 1-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

For 2-inch diameter well:

1 foot = 0.16 US gallons

1 meter = 2 liters

For 4-inch diameter well:

1 foot = 0.70 US gallons

1 meter = 8.2 liters

x 3 = 7.22

Total bailed 7.5 gallons

* No parameters due to hydrocarbons

VOLUME PURGED
(volume/total volume):

FIELD pH:

FIELD TEMPERATURE:

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES:

COLOR:

ODOR:

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/ AVERAGE

COPIES TO: _____

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: 07 Wingate Plant PROJECT NO.: 075006
 DATE OF WELL DEVELOPMENT: 07-01-11
 DEVELOPMENT CREW MEMBERS: Christine Matthews & Tim Fish
 PURGING METHOD: Disposable Bailer
 SAMPLE NO.: GW-075006-070111-CFM-012
 SAMPLE TIME: 10:05

start time
9:30

WELL INFORMATION

WELL NUMBER: WMW-1
 WELL TYPE (diameter/material): 2" PVC
 MEASURING POINT ELEVATION: _____
 STATIC WATER DEPTH: 5.20 ELEVATION: _____
 BOTTOM DEPTH: 15.00 ELEVATION: _____
 WATER COLUMN LENGTH: 9.8
 SCREENED INTERVAL: 5-15
 WELL VOLUME: 1.568 x 3 = 4.704

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons
 1 meter = 0.5 liters
 For 2-inch diameter well: 1 foot = 0.16 US gallons
 1 meter = 2 liters
 For 4-inch diameter well: 1 foot = 0.70 US gallons
 1 meter = 8.2 liters

VOLUME PURGED
(volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE: C°

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES: DO% / DO mg/L

COLOR:

ODOR: orp

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
	3.5	4	4.5			
	7.12	7.01	7.15			
	13.85	14.02	13.70			
	4852	4763	4896			
	22.8/2.26	17.5/1.56	14.9/1.51			
	LT Tan					
	91.9	96.4	100.4			

COPIES TO: _____

WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME:

Wingate Plant

PROJECT NO.:

075006

DATE OF WELL DEVELOPMENT:

7-1-11

DEVELOPMENT CREW MEMBERS:

Christie Matthews & Tim Fish

PURGING METHOD:

Submersible pump set @ 33 ft.

SAMPLE NO.:

GW-075006-070111-CRM-014

SAMPLE TIME:

1355

purging started @ 12pm

WELL INFORMATION

WELL NUMBER:

WMW-8

WELL TYPE (diameter/material)

4" PVC

MEASURING POINT ELEVATION:

STATIC WATER DEPTH:

6.41

ELEVATION:

BOTTOM DEPTH:

38.0

ELEVATION:

WATER COLUMN LENGTH:

31.59

SCREENED INTERVAL:

17-38

WELL VOLUME:

$31.59 \times 0.70 = 22.11$

Note: For 1-inch diameter well:

1 foot = 0.04 US gallons

1 meter = 0.5 liters

For 2-inch diameter well:

1 foot = 0.16 US gallons

1 meter = 2 liters

For 4-inch diameter well:

1 foot = 0.70 US gallons

1 meter = 8.2 liters

$\times 3 = 66.34$

Bucket (3gal)

|||||

TIME: 1348 1350 1352

Total purge volume

VOLUME PURGED

(volume/total volume): gallons

FIELD pH:

FIELD TEMPERATURE: C°

FIELD CONDUCTIVITY:

CLARITY/TURBIDITY VALUES: DO% DO mg/L

COLOR:

ODOR: ORP

COMMENTS:

UNITS	1	2	3	4	5	TOTAL/AVERAGE
	48	51	54			
	7.34	7.36	7.34			
	12.65	12.60	12.66			
	946	948	942			
	10.2/1.07	10.0/1.06	9.8/1.04			
	clear	clear	clear			
	45.5	44.4	41.8			

COPIES TO:

APPENDIX C

LABORATORY ANALYTICAL REPORTS



Gulf Coast

ACCUTEST

LABORATORIES

07/13/11

Technical Report for

Conoco Phillips

CRA: Wingate Fractionating Plant

Accutest Job Number: T79984

Sampling Date: 06/28/11

Report to:

Conestoga Rovers & Associates
6121 Indian School Rd. NE, Ste. 200
Albuquerque, NM 87110
keblanchard@craworld.com; christine.mathews@tetrattech.com;
cassandre.brown@tetrattech.com
ATTN: Kelly Blanchard

Total number of pages in report: 73



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Erica Cardenas 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

Sections:

-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: T79984-1: GW-075006-062811-CFM-001	5
2.2: T79984-1F: GW-075006-062811-CFM-001 (DISSOLVED)	12
2.3: T79984-2: GW-075006-062811-CFM-002	13
2.4: T79984-2F: GW-075006-062811-CFM-002 (DISSOLVED)	20
2.5: T79984-3: GW-075006-062811-CFM-003	21
2.6: T79984-3F: GW-075006-062811-CFM-003 (DISSOLVED)	25
2.7: T79984-4: TB-062811-CFM-001	26
Section 3: Misc. Forms	29
3.1: Chain of Custody	30
Section 4: GC/MS Volatiles - QC Data Summaries	35
4.1: Method Blank Summary	36
4.2: Blank Spike Summary	42
4.3: Matrix Spike/Matrix Spike Duplicate Summary	48
Section 5: GC/MS Semi-volatiles - QC Data Summaries	54
5.1: Method Blank Summary	55
5.2: Blank Spike Summary	58
5.3: Matrix Spike/Matrix Spike Duplicate Summary	61
Section 6: Metals Analysis - QC Data Summaries	64
6.1: Prep QC MP15135: As,Ba,Cd,Ca,Cr,Fe,Pb,Mg,Mn,Se,Ag,Na	65
Section 7: General Chemistry - QC Data Summaries	70
7.1: Method Blank and Spike Results Summary	71
7.2: Duplicate Results Summary	72
7.3: Matrix Spike Results Summary	73

Sample Summary

Conoco Phillips

Job No: T79984

CRA: Wingate Fractionating Plant

Sample Number	Collected		Matrix Received	Code	Type	Client Sample ID
	Date	Time By				
T79984-1	06/28/11	11:30	06/29/11	AQ	Ground Water	GW-075006-062811-CFM-001
T79984-1F	06/28/11	11:30	06/29/11	AQ	Groundwater Filtered	GW-075006-062811-CFM-001 (DISSOLVED)
T79984-2	06/28/11	11:50	06/29/11	AQ	Ground Water	GW-075006-062811-CFM-002
T79984-2F	06/28/11	11:50	06/29/11	AQ	Groundwater Filtered	GW-075006-062811-CFM-002 (DISSOLVED)
T79984-3	06/28/11	12:30	06/29/11	AQ	Ground Water	GW-075006-062811-CFM-003
T79984-3F	06/28/11	12:30	06/29/11	AQ	Groundwater Filtered	GW-075006-062811-CFM-003 (DISSOLVED)
T79984-4	06/28/11	16:00	06/29/11	AQ	Trip Blank Water	TB-062811-CFM-001



Gulf Coast

ACCUTEST®

LABORATORIES

2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-001
Lab Sample ID: T79984-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036326.D	1	07/10/11	JL	n/a	n/a	VM1484
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-001
Lab Sample ID: T79984-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11

Date Received: 06/29/11

Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		79-122%
17060-07-0	1,2-Dichloroethane-D4	103%		75-121%
2037-26-5	Toluene-D8	101%		87-119%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

2.1
2

Client Sample ID:	GW-075006-062811-CFM-001	Date Sampled:	06/28/11
Lab Sample ID:	T79984-1	Date Received:	06/29/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	114%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-062811-CFM-001	Date Sampled:	06/28/11
Lab Sample ID:	T79984-1	Date Received:	06/29/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P19010.D	1	07/08/11	SC	06/30/11	OP19121	EP909
Run #2							

Run #	Initial Volume	Final Volume
Run #1	890 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.011	0.0056	mg/l	
95-57-8	2-Chlorophenol	ND	0.0056	0.0013	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0056	0.0013	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0056	0.0025	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0056	0.0014	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.028	0.017	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0015	mg/l	
95-48-7	2-Methylphenol	ND	0.0056	0.00094	mg/l	
	3&4-Methylphenol	ND	0.0056	0.0018	mg/l	
88-75-5	2-Nitrophenol	ND	0.0056	0.0022	mg/l	
100-02-7	4-Nitrophenol	ND	0.028	0.0075	mg/l	
87-86-5	Pentachlorophenol	ND	0.028	0.015	mg/l	
108-95-2	Phenol	ND	0.0056	0.00084	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0056	0.0013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0056	0.0013	mg/l	
83-32-9	Acenaphthene	ND	0.0056	0.0018	mg/l	
208-96-8	Acenaphthylene	ND	0.0056	0.0014	mg/l	
62-53-3	Aniline	ND	0.0056	0.0051	mg/l	
120-12-7	Anthracene	ND	0.0056	0.0012	mg/l	
92-87-5	Benzidine	ND	0.028	0.0067	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0056	0.0012	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0056	0.0012	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0056	0.00098	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0056	0.0019	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0056	0.0012	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0056	0.0016	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0056	0.0018	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0056	0.0015	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0056	0.0016	mg/l	
106-47-8	4-Chloroaniline	ND	0.0056	0.0048	mg/l	
86-74-8	Carbazole	ND	0.0056	0.0017	mg/l	
218-01-9	Chrysene	ND	0.0056	0.0011	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-062811-CFM-001	Date Sampled:	06/28/11
Lab Sample ID:	T79984-1	Date Received:	06/29/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0056	0.0014	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0056	0.0015	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0056	0.0022	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0056	0.0015	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0056	0.0014	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0056	0.0015	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0056	0.0014	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0056	0.0014	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0056	0.0016	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0056	0.0015	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0036	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0056	0.0017	mg/l	
132-64-9	Dibenzofuran	ND	0.0056	0.0015	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0056	0.0011	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0056	0.0015	mg/l	
84-66-2	Diethyl phthalate	ND	0.0056	0.0012	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0056	0.0012	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0056	0.0020	mg/l	
206-44-0	Fluoranthene	ND	0.0056	0.0011	mg/l	
86-73-7	Fluorene	ND	0.0056	0.0015	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0056	0.0015	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0056	0.0012	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0058	mg/l	
67-72-1	Hexachloroethane	ND	0.0056	0.0011	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0056	0.0020	mg/l	
78-59-1	Isophorone	ND	0.0056	0.0013	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0056	0.0012	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0056	0.0014	mg/l	
88-74-4	2-Nitroaniline	ND	0.0056	0.0016	mg/l	
99-09-2	3-Nitroaniline	ND	0.0056	0.0037	mg/l	
100-01-6	4-Nitroaniline	ND	0.0056	0.0026	mg/l	
91-20-3	Naphthalene	ND	0.0056	0.0013	mg/l	
98-95-3	Nitrobenzene	ND	0.0056	0.0019	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0056	0.0011	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0056	0.0016	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0056	0.0019	mg/l	
85-01-8	Phenanthrene	ND	0.0056	0.0011	mg/l	
129-00-0	Pyrene	ND	0.0056	0.0019	mg/l	
110-86-1	Pyridine	ND	0.0056	0.0011	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0056	0.0014	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-001
Lab Sample ID: T79984-1
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11

Date Received: 06/29/11

Percent Solids: n/a

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		10-66%
4165-62-2	Phenol-d5	27%		10-53%
118-79-6	2,4,6-Tribromophenol	82%		32-128%
4165-60-0	Nitrobenzene-d5	50%		29-115%
321-60-8	2-Fluorobiphenyl	61%		34-113%
1718-51-0	Terphenyl-d14	108%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-062811-CFM-001
Lab Sample ID: T79984-1
Matrix: AQ - Ground Water
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	320	10	mg/l	1	07/12/11 09:00	MC	SM 2320B
BOD, 5 Day	< 2.0	2.0	mg/l	1	06/29/11 23:21	OT	SM 5210B
Chemical Oxygen Demand	< 20	20	mg/l	1	07/09/11	BF	SM 5220D
Chloride	23.6	1.0	mg/l	2	07/09/11 20:36	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	06/30/11 17:56	ES	EPA 300/SW846 9056
Solids, Total Dissolved	514	10	mg/l	1	07/01/11	BG	SM 2540C
Sulfate	18.7	0.50	mg/l	1	06/30/11 17:56	ES	EPA 300/SW846 9056
pH	7.62		su	1	06/29/11 13:53	BM	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-001 (DISSOLVED)
Lab Sample ID: T79984-1F
Matrix: AQ - Groundwater Filtered
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Barium	< 200	200	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Cadmium	< 4.0	4.0	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Calcium	30100	5000	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Chromium	< 10	10	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Iron	< 100	100	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Lead	< 3.0	3.0	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Magnesium	14000	5000	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Manganese	525	15	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Selenium	< 5.0	5.0	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Silver	< 10	10	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²
Sodium	165000	5000	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA5881

(2) Prep QC Batch: MP15135

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-002
Lab Sample ID: T79984-2
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036327.D	1	07/10/11	JL	n/a	n/a	VM1484
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-002
Lab Sample ID: T79984-2
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		79-122%
17060-07-0	1,2-Dichloroethane-D4	102%		75-121%
2037-26-5	Toluene-D8	102%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	GW-075006-062811-CFM-002	Date Sampled:	06/28/11
Lab Sample ID:	T79984-2	Date Received:	06/29/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	116%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-062811-CFM-002	Date Sampled:	06/28/11
Lab Sample ID:	T79984-2	Date Received:	06/29/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P19013.D	1	07/08/11	SC	06/30/11	OP19121	EP909
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.011	0.0052	mg/l	
95-57-8	2-Chlorophenol	ND	0.0053	0.0013	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0053	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0053	0.0023	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0053	0.0013	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.016	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0014	mg/l	
95-48-7	2-Methylphenol	ND	0.0053	0.00088	mg/l	
	3&4-Methylphenol	ND	0.0053	0.0017	mg/l	
88-75-5	2-Nitrophenol	ND	0.0053	0.0021	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.0070	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.014	mg/l	
108-95-2	Phenol	ND	0.0053	0.00079	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0053	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0053	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0053	0.0016	mg/l	
208-96-8	Acenaphthylene	ND	0.0053	0.0013	mg/l	
62-53-3	Aniline	ND	0.0053	0.0048	mg/l	
120-12-7	Anthracene	ND	0.0053	0.0012	mg/l	
92-87-5	Benzidine	ND	0.026	0.0063	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0053	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0053	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0053	0.00091	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0053	0.0017	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0053	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0053	0.0015	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0053	0.0017	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0053	0.0014	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0053	0.0015	mg/l	
106-47-8	4-Chloroaniline	ND	0.0053	0.0045	mg/l	
86-74-8	Carbazole	ND	0.0053	0.0016	mg/l	
218-01-9	Chrysene	ND	0.0053	0.0010	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID:	GW-075006-062811-CFM-002	Date Sampled:	06/28/11
Lab Sample ID:	T79984-2	Date Received:	06/29/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0053	0.0014	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0053	0.0014	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0053	0.0021	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0053	0.0014	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0053	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0053	0.0014	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0053	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0053	0.0014	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0053	0.0015	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0053	0.0014	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0034	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0053	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0053	0.0014	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0053	0.0011	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0053	0.0014	mg/l	
84-66-2	Diethyl phthalate	ND	0.0053	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0053	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0053	0.0019	mg/l	
206-44-0	Fluoranthene	ND	0.0053	0.0010	mg/l	
86-73-7	Fluorene	ND	0.0053	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0053	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0053	0.0012	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0054	mg/l	
67-72-1	Hexachloroethane	ND	0.0053	0.0010	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0053	0.0019	mg/l	
78-59-1	Isophorone	ND	0.0053	0.0013	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0053	0.0011	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0053	0.0013	mg/l	
88-74-4	2-Nitroaniline	ND	0.0053	0.0015	mg/l	
99-09-2	3-Nitroaniline	ND	0.0053	0.0035	mg/l	
100-01-6	4-Nitroaniline	ND	0.0053	0.0025	mg/l	
91-20-3	Naphthalene	ND	0.0053	0.0012	mg/l	
98-95-3	Nitrobenzene	ND	0.0053	0.0018	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0053	0.0010	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0053	0.0015	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0053	0.0018	mg/l	
85-01-8	Phenanthrene	ND	0.0053	0.0010	mg/l	
129-00-0	Pyrene	ND	0.0053	0.0017	mg/l	
110-86-1	Pyridine	ND	0.0053	0.0010	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0053	0.0013	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-002
Lab Sample ID: T79984-2
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	26%		10-66%
4165-62-2	Phenol-d5	25%		10-53%
118-79-6	2,4,6-Tribromophenol	85%		32-128%
4165-60-0	Nitrobenzene-d5	35%		29-115%
321-60-8	2-Fluorobiphenyl	44%		34-113%
1718-51-0	Terphenyl-d14	86%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-062811-CFM-002
Lab Sample ID: T79984-2
Matrix: AQ - Ground Water
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	99.0	5.0	mg/l	1	07/12/11 09:00	MC	SM 2320B
BOD, 5 Day	5.5	3.0	mg/l	1	06/29/11 23:23	OT	SM 5210B
Chemical Oxygen Demand	132	20	mg/l	1	07/09/11	BF	SM 5220D
Chloride	4320	500	mg/l	1000	07/10/11 15:12	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 5.0	5.0	mg/l	10	06/30/11 18:13	ES	EPA 300/SW846 9056
Solids, Total Dissolved	20600	170	mg/l	1	07/01/11	BG	SM 2540C
Sulfate	10300	500	mg/l	1000	07/10/11 15:12	ES	EPA 300/SW846 9056
pH	9.60		su	1	06/29/11 13:53	BM	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-002 (DISSOLVED)
Lab Sample ID: T79984-2F **Date Sampled:** 06/28/11
Matrix: AQ - Groundwater Filtered **Date Received:** 06/29/11
Project: CRA: Wingate Fractionating Plant **Percent Solids:** n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	7.3	5.0	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Barium	< 200	200	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Calcium	1080000	25000	ug/l	5	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Iron	< 100	100	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Magnesium	979000	25000	ug/l	5	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Manganese	29.6	15	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Sodium	3990000	50000	ug/l	10	07/01/11	07/08/11 EG	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA5881

(2) Instrument QC Batch: MA5895

(3) Prep QC Batch: MP15135

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	GW-075006-062811-CFM-003	Date Sampled:	06/28/11
Lab Sample ID:	T79984-3	Date Received:	06/29/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	X0074166.D	25	07/12/11	DR	n/a	n/a	VX1097
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1.3	0.25	mg/l	
71-43-2	Benzene	0.0098	0.025	0.0062	mg/l	J
108-86-1	Bromobenzene	ND	0.025	0.0067	mg/l	
74-97-5	Bromochloromethane	ND	0.025	0.010	mg/l	
75-27-4	Bromodichloromethane	ND	0.025	0.0064	mg/l	
75-25-2	Bromoform	ND	0.025	0.0088	mg/l	
104-51-8	n-Butylbenzene	ND	0.025	0.0075	mg/l	
135-98-8	sec-Butylbenzene	ND	0.025	0.0084	mg/l	
98-06-6	tert-Butylbenzene	ND	0.025	0.0080	mg/l	
108-90-7	Chlorobenzene	ND	0.025	0.0054	mg/l	
75-00-3	Chloroethane	ND	0.025	0.011	mg/l	
67-66-3	Chloroform	ND	0.025	0.0051	mg/l	
95-49-8	o-Chlorotoluene	ND	0.025	0.0070	mg/l	
106-43-4	p-Chlorotoluene	ND	0.025	0.0073	mg/l	
75-15-0	Carbon disulfide	0.0120	0.025	0.0090	mg/l	J
56-23-5	Carbon tetrachloride	ND	0.025	0.0090	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.025	0.0072	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.025	0.010	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.025	0.0081	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.050	0.022	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.025	0.0066	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.025	0.0049	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.025	0.0063	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.025	0.0053	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.025	0.0092	mg/l	
124-48-1	Dibromochloromethane	ND	0.025	0.0071	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.050	0.023	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.025	0.0059	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.025	0.0051	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.025	0.0064	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.025	0.0070	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.025	0.0072	mg/l	

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-003
Lab Sample ID: T79984-3
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.025	0.0076	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.025	0.0053	mg/l	
100-41-4	Ethylbenzene	0.0066	0.025	0.0063	mg/l	J
591-78-6	2-Hexanone	ND	0.25	0.061	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.025	0.016	mg/l	
98-82-8	Isopropylbenzene	ND	0.025	0.0068	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.025	0.0084	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.25	0.047	mg/l	
74-83-9	Methyl bromide	ND	0.025	0.0078	mg/l	
74-87-3	Methyl chloride	ND	0.025	0.0067	mg/l	
74-95-3	Methylene bromide	ND	0.025	0.0075	mg/l	
75-09-2	Methylene chloride	ND	0.13	0.025	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.25	0.046	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.025	0.0071	mg/l	
91-20-3	Naphthalene	ND	0.13	0.025	mg/l	
103-65-1	n-Propylbenzene	ND	0.025	0.0067	mg/l	
100-42-5	Styrene	ND	0.025	0.0056	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.025	0.0060	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.025	0.0077	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.025	0.0096	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.025	0.0091	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.025	0.013	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.025	0.011	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.025	0.0081	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.025	0.0059	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.025	0.0067	mg/l	
127-18-4	Tetrachloroethylene	ND	0.025	0.0083	mg/l	
108-88-3	Toluene	0.0186	0.025	0.0064	mg/l	J
79-01-6	Trichloroethylene	ND	0.025	0.0089	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.025	0.010	mg/l	
75-01-4	Vinyl chloride	ND	0.025	0.0099	mg/l	
1330-20-7	Xylene (total)	ND	0.075	0.018	mg/l	
	m,p-Xylene	ND	0.050	0.012	mg/l	
95-47-6	o-Xylene	ND	0.025	0.0057	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		79-122%
17060-07-0	1,2-Dichloroethane-D4	97%		75-121%
2037-26-5	Toluene-D8	97%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-062811-CFM-003	Date Sampled: 06/28/11
Lab Sample ID: T79984-3	Date Received: 06/29/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: CRA: Wingate Fractionating Plant	

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		80-133%

(a) Dilution required due to excessive foaming.

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-062811-CFM-003
Lab Sample ID: T79984-3
Matrix: AQ - Ground Water
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
Date Received: 06/29/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	2130	50	mg/l	1	07/12/11 09:00	MC	SM 2320B
BOD, 5 Day ^a	> 48.2	12	mg/l	1	06/29/11 23:23	OT	SM 5210B
Chemical Oxygen Demand	4650	500	mg/l	10	07/11/11	BF	SM 5220D
Chloride	204000	10000	mg/l	20000	07/10/11 15:29	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 50	50	mg/l	100	06/30/11 18:30	ES	EPA 300/SW846 9056
Solids, Total Dissolved	37400	1000	mg/l	1	07/01/11	BG	SM 2540C
Sulfate	190000	5000	mg/l	10000	07/09/11 21:10	ES	EPA 300/SW846 9056
pH	7.02		su	1	06/29/11 13:53	BM	SM 4500H+ B/9040

(a) Sample depleted. BOD result is an estimate.

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-062811-CFM-003 (DISSOLVED)

Lab Sample ID: T79984-3F

Date Sampled: 06/28/11

Matrix: AQ - Groundwater Filtered

Date Received: 06/29/11

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	152	50	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Barium	< 2000	2000	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Cadmium	< 40	40	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Calcium	135000	50000	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Chromium	< 100	100	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Iron	< 1000	1000	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Lead ^a	< 60	60	ug/l	20	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Magnesium	36700000	500000	ug/l	100	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Manganese	7660	150	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Selenium	< 50	50	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Silver	< 100	100	ug/l	10	07/01/11	07/03/11 EG	SW846 6010B ¹	SW846 3010A ³
Sodium	63200000	1000000	ug/l	200	07/01/11	07/08/11 EG	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA5881

(2) Instrument QC Batch: MA5895

(3) Prep QC Batch: MP15135

(a) Elevated reporting limit due to matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB-062811-CFM-001	Date Sampled:	06/28/11
Lab Sample ID:	T79984-4	Date Received:	06/29/11
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036324.D	1	07/10/11	JL	n/a	n/a	VM1484
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TB-062811-CFM-001
 Lab Sample ID: T79984-4
 Matrix: AQ - Trip Blank Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/28/11
 Date Received: 06/29/11
 Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		79-122%
17060-07-0	1,2-Dichloroethane-D4	104%		75-121%
2037-26-5	Toluene-D8	103%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	TB-062811-CFM-001	Date Sampled:	06/28/11
Lab Sample ID:	T79984-4	Date Received:	06/29/11
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	114%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Gulf Coast

ACCUTEST®

LABORATORIES



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



Accutest Laboratories Sample Receipt Summary

Page 1 of 3

Accutest Job Number: T79984 Client: CRA Project: WINGATE FRATIONATING
Date / Time Received: 6/29/2011 Delivery Method: FedEx Airbill #'s: 4868-9990-9072, 4868-9990-9083
No. Coolers: 2 Therm ID: 110; IRGUN4; Temp Adjustment Factor: -0.5; -0.1;
Cooler Temps (Initial/Adjusted): #1: (4.7/4.2); #2: (5.9/5.8);

Cooler Security

Y or N

1. Custody Seals Present: ☒ ☐
2. Custody Seals Intact: ☒ ☐

3. COC Present:

Y or N

4. Smpl Dates/Time OK

Cooler Temperature

Y or N

1. Temp criteria achieved: ☒ ☐
2. Cooler temp verification: IR Gun
3. Cooler media: Ice (Bag)

Quality Control Preservation

Y or N

N/A

WTB STB

1. Trip Blank present / cooler: ☒ ☐ ☐ ☒ ☐
2. Trip Blank listed on COC: ☒ ☐ ☐
3. Samples preserved properly: ☒ ☐
4. VOCs headspace free: ☐ ☒ ☐

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles: ☒ ☐
2. Container labeling complete: ☒ ☐
3. Sample container label / COC agree: ☐ ☒

Sample Integrity - Condition

Y or N

1. Sample recvd within HT: ☒ ☐
2. All containers accounted for: ☒ ☐
3. Condition of sample: Intact

Sample Integrity - Instructions

Y or N N/A

1. Analysis requested is clear: ☒ ☐
2. Bottles received for unspecified tests: ☐ ☒
3. Sufficient volume recvd for analysis: ☒ ☐
4. Compositing instructions clear: ☐ ☐ ☒
5. Filtering instructions clear: ☐ ☐ ☒

Comments ALL VIALS FOR GW-075006-062811-CFM-003 HAVE HEADSPACE
TRIP BLANKS 1 VIAL HAS HEADSPACE
ON ALL BOTTLES FOR SAMPLES #2 AND #3 IT HAS "SW" -075006-062811-CFM-002 & -075006-062811-CFM-003 INSTEAD OF "GW"
SAMPLE #1 NO DATE AND TIME LIST ON ALL BOTTLES

Accutest Laboratories
V: 713.271.4700

10165 Harwin Drive
F: 713.271.4770

Houston, TX 77038
www.accutest.com

T79984: Chain of Custody
Page 3 of 5

Sample Receipt Log

Page 2 of 3

Job #: T79984

Date / Time Received: 6/29/2011 9:15:00 AM

Initials: BG

Client: CRA

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
2	T79984-1	1000 ml	1	3C	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-1	LAG	2	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-1	LAG	3	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-1	500 ml	4	3C	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-1	500 ml	5	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-1	250 ml	6	3C	H2SO4	pH < 2	IRGUN4	5.9	-0.1	5.8
2	T79984-1	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-1	40 ml	8	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-1	40 ml	9	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
1	T79984-2	1000 ml	1	3C	N/P	Note #2 - Preservative check not applicable.	110	4.7	-0.5	4.2
1	T79984-2	LAG	2	1EE	N/P	Note #2 - Preservative check not applicable.	110	4.7	-0.5	4.2
1	T79984-2	LAG	3	1EE	N/P	Note #2 - Preservative check not applicable.	110	4.7	-0.5	4.2
1	T79984-2	500 ml	4	3C	N/P	Note #2 - Preservative check not applicable.	110	4.7	-0.5	4.2
1	T79984-2	500 ml	5	1EE	N/P	Note #2 - Preservative check not applicable.	110	4.7	-0.5	4.2
1	T79984-2	250 ml	6	3C	H2SO4	pH < 2	110	4.7	-0.5	4.2
2	T79984-2	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-2	40 ml	8	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-2	40 ml	9	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-3	1000 ml	1	3C	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-3	LAG	2	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-3	LAG	3	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-3	500 ml	4	3C	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8
2	T79984-3	500 ml	5	1EE	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.9	-0.1	5.8

T79984: Chain of Custody

Page 4 of 5

Sample Receipt Log

Page 3 of 3

Job #: T79984

Date / Time Received: 6/29/2011 9:15:00 AM

Initials: BG

Client: CRA

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T79984-3	250 ml	6	3C	H2SO4	pH < 2	110	4.7	-0.5	4.2
2	T79984-3	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-3	40 ml	8	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-3	40 ml	9	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-4	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8
2	T79984-4	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	5.9	-0.1	5.8

T79984: Chain of Custody

Page 5 of 5



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-MB	M0036313.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.27	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.34	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.28	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.33	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.87	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.27	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.21	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.25	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T79984
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-MB	M0036313.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.27	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.33	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.41	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	108%	79-122%
17060-07-0	1,2-Dichloroethane-D4	102%	75-121%

Method Blank Summary

Page 3 of 3

Job Number: T79984
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-MB	M0036313.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	104% 87-119%
460-00-4	4-Bromofluorobenzene	115% 80-133%

Method Blank Summary

Page 1 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D 1		07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Compound	Result	RL	MDL	Units · Q
67-64-1	Acetone	ND	50	10	ug/l
71-43-2	Benzene	ND	1.0	0.25	ug/l
108-86-1	Bromobenzene	ND	1.0	0.27	ug/l
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l
75-25-2	Bromoform	ND	1.0	0.35	ug/l
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l
135-98-8	sec-Butylbenzene	ND	1.0	0.34	ug/l
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l
75-00-3	Chloroethane	ND	1.0	0.44	ug/l
67-66-3	Chloroform	ND	1.0	0.20	ug/l
95-49-8	o-Chlorotoluene	ND	1.0	0.28	ug/l
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l
563-58-6	1,1-Dichloropropene	ND	1.0	0.33	ug/l
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.87	ug/l
106-93-4	1,2-Dibromoethane	ND	1.0	0.27	ug/l
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l
142-28-9	1,3-Dichloropropane	ND	1.0	0.21	ug/l
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l
541-73-1	m-Dichlorobenzene	ND	1.0	0.25	ug/l
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l
106-46-7	p-Dichlorobenzene	ND	1.0	0.29	ug/l
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l
591-78-6	2-Hexanone	ND	10	2.4	ug/l

Method Blank Summary

Page 2 of 3

Job Number: T79984
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.27	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.33	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.41	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 79-122%
17060-07-0	1,2-Dichloroethane-D4	96% 75-121%

Method Blank Summary

Page 3 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	97% 87-119%
460-00-4	4-Bromofluorobenzene	98% 80-133%

Blank Spike Summary

Page 1 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-BS	M0036311.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	116	93	62-124
71-43-2	Benzene	25	22.4	90	76-118
108-86-1	Bromobenzene	25	20.4	82	72-110
74-97-5	Bromochloromethane	25	20.2	81	69-110
75-27-4	Bromodichloromethane	25	21.1	84	68-107
75-25-2	Bromoform	25	21.0	84	64-103
104-51-8	n-Butylbenzene	25	19.9	80	74-114
135-98-8	sec-Butylbenzene	25	20.8	83	76-118
98-06-6	tert-Butylbenzene	25	20.9	84	72-116
108-90-7	Chlorobenzene	25	20.7	83	74-111
75-00-3	Chloroethane	25	26.6	106	75-135
67-66-3	Chloroform	25	20.9	84	75-117
95-49-8	o-Chlorotoluene	25	19.8	79	74-113
106-43-4	p-Chlorotoluene	25	21.2	85	72-114
75-15-0	Carbon disulfide	25	21.2	85	57-126
56-23-5	Carbon tetrachloride	25	24.3	97	75-125
75-34-3	1,1-Dichloroethane	25	21.7	87	76-121
75-35-4	1,1-Dichloroethylene	25	25.0	100	71-128
563-58-6	1,1-Dichloropropene	25	21.0	84	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	25.6	102	55-121
106-93-4	1,2-Dibromoethane	25	21.2	85	69-106
107-06-2	1,2-Dichloroethane	25	22.4	90	70-111
78-87-5	1,2-Dichloropropane	25	20.6	82	71-113
142-28-9	1,3-Dichloropropane	25	21.3	85	69-106
594-20-7	2,2-Dichloropropane	25	16.2	69	68-130
124-48-1	Dibromochloromethane	25	20.4	82	69-104
75-71-8	Dichlorodifluoromethane	25	34.3	137* a	28-120
156-59-2	cis-1,2-Dichloroethylene	25	20.5	82	68-113
10061-01-5	cis-1,3-Dichloropropene	25	18.9	76	71-111
541-73-1	m-Dichlorobenzene	25	19.7	79	74-110
95-50-1	o-Dichlorobenzene	25	20.1	80	72-108
106-46-7	p-Dichlorobenzene	25	22.4	90	74-110
156-60-5	trans-1,2-Dichloroethylene	25	22.3	89	70-125
10061-02-6	trans-1,3-Dichloropropene	25	20.6	82	75-111
100-41-4	Ethylbenzene	25	20.6	82	75-112
591-78-6	2-Hexanone	125	105	84	60-113

Blank Spike Summary

Page 2 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-BS	M0036311.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	21.0	84	72-123
98-82-8	Isopropylbenzene	25	23.9	96	75-123
99-87-6	p-Isopropyltoluene	25	21.2	85	76-116
108-10-1	4-Methyl-2-pentanone	125	98.6	79	63-115
74-83-9	Methyl bromide	25	25.7	103	59-132
74-87-3	Methyl chloride	25	26.4	106	56-150
74-95-3	Methylene bromide	25	21.7	87	68-114
75-09-2	Methylene chloride	25	21.6	86	70-113
78-93-3	Methyl ethyl ketone	125	113	90	62-117
1634-04-4	Methyl Tert Butyl Ether	25	19.5	78	65-113
91-20-3	Naphthalene	25	21.8	87	53-127
103-65-1	n-Propylbenzene	25	20.2	81	74-115
100-42-5	Styrene	25	20.6	82	76-110
630-20-6	1,1,1,2-Tetrachloroethane	25	21.0	84	72-108
71-55-6	1,1,1-Trichloroethane	25	22.2	89	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	22.1	88	67-110
79-00-5	1,1,2-Trichloroethane	25	21.6	86	69-107
87-61-6	1,2,3-Trichlorobenzene	25	22.8	91	51-128
96-18-4	1,2,3-Trichloropropane	25	22.2	89	55-116
120-82-1	1,2,4-Trichlorobenzene	25	20.1	80	63-114
95-63-6	1,2,4-Trimethylbenzene	25	19.6	78	73-111
108-67-8	1,3,5-Trimethylbenzene	25	18.8	75	74-115
127-18-4	Tetrachloroethylene	25	26.2	105	77-120
108-88-3	Toluene	25	20.5	82	77-114
79-01-6	Trichloroethylene	25	21.2	85	74-117
75-69-4	Trichlorofluoromethane	25	28.2	113	64-132
75-01-4	Vinyl chloride	25	25.7	103	64-121
1330-20-7	Xylene (total)	75	61.9	83	75-111
	m,p-Xylene	50	41.0	82	75-112
95-47-6	o-Xylene	25	20.9	84	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	79-122%
17060-07-0	1,2-Dichloroethane-D4	104%	75-121%

Blank Spike Summary

Page 3 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-BS	M0036311.D	1	07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	105%	87-119%
460-00-4	4-Bromofluorobenzene	111%	80-133%

(a) Outside control limits biased high. Only ND results for this compound are reported for all the samples associated with this BS.

Blank Spike Summary

Page 1 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	100	80	62-124
71-43-2	Benzene	25	24.3	97	76-118
108-86-1	Bromobenzene	25	23.6	94	72-110
74-97-5	Bromochloromethane	25	23.9	96	69-110
75-27-4	Bromodichloromethane	25	23.9	96	68-107
75-25-2	Bromoform	25	22.9	92	64-103
104-51-8	n-Butylbenzene	25	24.5	98	74-114
135-98-8	sec-Butylbenzene	25	25.6	102	76-118
98-06-6	tert-Butylbenzene	25	24.7	99	72-116
108-90-7	Chlorobenzene	25	24.7	99	74-111
75-00-3	Chloroethane	25	26.0	104	75-135
67-66-3	Chloroform	25	23.7	95	75-117
95-49-8	o-Chlorotoluene	25	23.7	95	74-113
106-43-4	p-Chlorotoluene	25	24.7	99	72-114
75-15-0	Carbon disulfide	25	25.5	102	57-126
56-23-5	Carbon tetrachloride	25	26.6	106	75-125
75-34-3	1,1-Dichloroethane	25	25.3	101	76-121
75-35-4	1,1-Dichloroethylene	25	27.7	111	71-128
563-58-6	1,1-Dichloropropene	25	26.8	107	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	22.7	91	55-121
106-93-4	1,2-Dibromoethane	25	23.5	94	69-106
107-06-2	1,2-Dichloroethane	25	23.7	95	70-111
78-87-5	1,2-Dichloropropane	25	24.0	96	71-113
142-28-9	1,3-Dichloropropane	25	22.9	92	69-106
594-20-7	2,2-Dichloropropane	25	26.5	106	68-130
124-48-1	Dibromochloromethane	25	23.8	95	69-104
75-71-8	Dichlorodifluoromethane	25	29.8	119	28-120
156-59-2	cis-1,2-Dichloroethylene	25	24.0	96	68-113
10061-01-5	cis-1,3-Dichloropropene	25	24.3	97	71-111
541-73-1	m-Dichlorobenzene	25	24.5	98	74-110
95-50-1	o-Dichlorobenzene	25	24.1	96	72-108
106-46-7	p-Dichlorobenzene	25	24.2	97	74-110
156-60-5	trans-1,2-Dichloroethylene	25	24.9	100	70-125
10061-02-6	trans-1,3-Dichloropropene	25	25.2	101	75-111
100-41-4	Ethylbenzene	25	24.3	97	75-112
591-78-6	2-Hexanone	125	97.6	78	60-113

Blank Spike Summary

Page 2 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	26.8	107	72-123
98-82-8	Isopropylbenzene	25	28.9	116	75-123
99-87-6	p-Isopropyltoluene	25	26.0	104	76-116
108-10-1	4-Methyl-2-pentanone	125	100	80	63-115
74-83-9	Methyl bromide	25	26.6	106	59-132
74-87-3	Methyl chloride	25	25.3	101	56-150
74-95-3	Methylene bromide	25	23.5	94	68-114
75-09-2	Methylene chloride	25	23.3	93	70-113
78-93-3	Methyl ethyl ketone	125	104	83	62-117
1634-04-4	Methyl Tert Butyl Ether	25	21.9	88	65-113
91-20-3	Naphthalene	25	22.7	91	53-127
103-65-1	n-Propylbenzene	25	25.1	100	74-115
100-42-5	Styrene	25	24.5	98	76-110
630-20-6	1,1,1,2-Tetrachloroethane	25	24.1	96	72-108
71-55-6	1,1,1-Trichloroethane	25	25.2	101	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	22.1	88	67-110
79-00-5	1,1,2-Trichloroethane	25	22.8	91	69-107
87-61-6	1,2,3-Trichlorobenzene	25	23.9	96	51-128
96-18-4	1,2,3-Trichloropropane	25	22.0	88	55-116
120-82-1	1,2,4-Trichlorobenzene	25	24.3	97	63-114
95-63-6	1,2,4-Trimethylbenzene	25	23.9	96	73-111
108-67-8	1,3,5-Trimethylbenzene	25	23.8	95	74-115
127-18-4	Tetrachloroethylene	25	25.6	102	77-120
108-88-3	Toluene	25	24.3	97	77-114
79-01-6	Trichloroethylene	25	24.5	98	74-117
75-69-4	Trichlorofluoromethane	25	28.8	115	64-132
75-01-4	Vinyl chloride	25	23.9	96	64-121
1330-20-7	Xylene (total)	75	73.1	97	75-111
	m,p-Xylene	50	48.9	98	75-112
95-47-6	o-Xylene	25	24.1	96	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	79-122%
17060-07-0	1,2-Dichloroethane-D4	92%	75-121%

Blank Spike Summary

Page 3 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	100%	87-119%
460-00-4	4-Bromofluorobenzene	97%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80152-1MS	M0036316.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1MSD	M0036317.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1	M0036315.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Compound	T80152-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	131	105	128	102	2	62-124/21
71-43-2	Benzene	ND		25	25.9	104	24.3	97	6	76-118/16
108-86-1	Bromobenzene	ND		25	22.1	88	22.3	89	1	72-110/12
74-97-5	Bromochloromethane	ND		25	24.7	99	23.2	93	6	69-110/12
75-27-4	Bromodichloromethane	ND		25	24.0	96	23.0	92	4	68-107/12
75-25-2	Bromoform	ND		25	23.8	95	23.4	94	2	64-103/14
104-51-8	n-Butylbenzene	ND		25	21.9	88	21.3	85	3	74-114/12
135-98-8	sec-Butylbenzene	ND		25	22.3	89	22.7	91	2	76-118/12
98-06-6	tert-Butylbenzene	ND		25	22.9	92	22.8	91	0	72-116/14
108-90-7	Chlorobenzene	ND		25	25.2	101	24.6	98	2	74-111/11
75-00-3	Chloroethane	ND		25	28.6	114	26.2	105	9	75-135/15
67-66-3	Chloroform	ND		25	24.8	99	25.1	100	1	75-117/12
95-49-8	o-Chlorotoluene	ND		25	21.6	86	22.1	88	2	74-113/12
106-43-4	p-Chlorotoluene	ND		25	23.0	92	22.7	91	1	72-114/12
75-15-0	Carbon disulfide	ND		25	24.3	97	23.9	96	2	57-126/13
56-23-5	Carbon tetrachloride	ND		25	27.8	111	25.3	101	9	75-125/12
75-34-3	1,1-Dichloroethane	ND		25	25.1	100	25.2	101	0	76-121/13
75-35-4	1,1-Dichloroethylene	ND		25	29.0	116	28.7	115	1	71-128/19
563-58-6	1,1-Dichloropropene	ND		25	24.9	100	23.6	94	5	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	29.0	116	26.1	104	11	55-121/33
106-93-4	1,2-Dibromoethane	ND		25	23.9	96	23.5	94	2	69-106/13
107-06-2	1,2-Dichloroethane	ND		25	26.1	104	25.1	100	4	70-111/14
78-87-5	1,2-Dichloropropane	ND		25	23.6	94	22.2	89	6	71-113/12
142-28-9	1,3-Dichloropropane	ND		25	23.7	95	23.4	94	1	69-106/12
594-20-7	2,2-Dichloropropane	ND		25	17.6	70	17.6	70	0	68-130/14
124-48-1	Dibromochloromethane	ND		25	22.9	92	22.2	89	3	69-104/12
75-71-8	Dichlorodifluoromethane	ND		25	35.7	143*	34.4	138*	4	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND		25	23.4	94	22.7	91	3	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND		25	20.8	83	20.3	81	2	71-111/12
541-73-1	m-Dichlorobenzene	ND		25	21.3	85	22.8	91	7	74-110/12
95-50-1	o-Dichlorobenzene	ND		25	22.5	90	22.6	90	0	72-108/12
106-46-7	p-Dichlorobenzene	ND		25	25.1	100	24.3	97	3	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND		25	25.8	103	24.8	99	4	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND		25	23.8	95	23.1	92	3	75-111/12
100-41-4	Ethylbenzene	ND		25	23.6	94	22.4	90	5	75-112/12
591-78-6	2-Hexanone	ND		125	117	94	119	95	2	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80152-1MS	M0036316.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1MSD	M0036317.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1	M0036315.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Compound	T80152-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND	25	22.8	91	22.6	90	1	72-123/17
98-82-8	Isopropylbenzene	ND	25	26.3	105	25.9	104	2	75-123/12
99-87-6	p-Isopropyltoluene	ND	25	23.0	92	22.7	91	1	76-116/12
108-10-1	4-Methyl-2-pentanone	ND	125	113	90	113	90	0	63-115/21
74-83-9	Methyl bromide	ND	25	26.7	107	25.4	102	5	59-132/15
74-87-3	Methyl chloride	ND	25	28.4	114	28.9	116	2	56-150/17
74-95-3	Methylene bromide	ND	25	24.6	98	25.7	103	4	68-114/13
75-09-2	Methylene chloride	ND	25	23.7	95	22.3	89	6	70-113/13
78-93-3	Methyl ethyl ketone	ND	125	123	98	123	98	0	62-117/21
1634-04-4	Methyl Tert Butyl Ether	ND	25	21.9	88	21.7	87	1	65-113/13
91-20-3	Naphthalene	ND	25	21.4	86	22.7	91	6	53-127/34
103-65-1	n-Propylbenzene	ND	25	22.4	90	22.5	90	0	74-115/12
100-42-5	Styrene	ND	25	22.5	90	22.5	90	0	76-110/11
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	23.0	92	22.7	91	1	72-108/11
71-55-6	1,1,1-Trichloroethane	ND	25	26.2	105	25.4	102	3	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	24.1	96	24.0	96	0	67-110/20
79-00-5	1,1,2-Trichloroethane	ND	25	24.6	98	25.1	100	2	69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND	25	22.8	91	24.7	99	8	51-128/31
96-18-4	1,2,3-Trichloropropane	ND	25	24.4	98	25.3	101	4	55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND	25	21.7	87	21.7	87	0	63-114/21
95-63-6	1,2,4-Trimethylbenzene	ND	25	21.6	86	22.1	88	2	73-111/13
108-67-8	1,3,5-Trimethylbenzene	ND	25	21.5	86	22.1	88	3	74-115/12
127-18-4	Tetrachloroethylene	ND	25	26.9	108	27.3	109	1	77-120/13
108-88-3	Toluene	ND	25	23.5	94	23.1	92	2	77-114/12
79-01-6	Trichloroethylene	19.6	25	42.6	92	43.7	96	3	74-117/12
75-69-4	Trichlorofluoromethane	ND	25	29.5	118	28.3	113	4	64-132/18
75-01-4	Vinyl chloride	ND	25	26.9	108	24.2	97	11	64-121/19
1330-20-7	Xylene (total)	ND	75	70.6	94	70.3	94	0	75-111/12
	m,p-Xylene	ND	50	46.7	93	46.6	93	0	75-112/12
95-47-6	o-Xylene	ND	25	23.9	96	23.7	95	1	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T80152-1	Limits
1868-53-7	Dibromofluoromethane	107%	106%	107%	79-122%
17060-07-0	1,2-Dichloroethane-D4	103%	103%	107%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80152-1MS	M0036316.D	1	07/10/11	JL	n/a	n/a	VM1484
T80152-1MSD	M0036317.D	1	07/10/11	JL	n/a	n/a	VM1484
T80152-1	M0036315.D	1	07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-1, T79984-2, T79984-4

CAS No.	Surrogate Recoveries	MS	MSD	T80152-1	Limits
2037-26-5	Toluene-D8	106%	105%	104%	87-119%
460-00-4	4-Bromofluorobenzene	108%	110%	119%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D	50	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Compound	T80288-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	88.3	125	195	85	195	85	0	62-124/21
71-43-2	Benzene	ND	25	2330	80	2350	160* a	1	76-118/16
108-86-1	Bromobenzene	ND	25	22.0	88	21.9	88	0	72-110/12
74-97-5	Bromochloromethane	ND	25	22.6	90	22.5	90	0	69-110/12
75-27-4	Bromodichloromethane	ND	25	23.1	92	22.7	91	2	68-107/12
75-25-2	Bromoform	ND	25	20.7	83	21.3	85	3	64-103/14
104-51-8	n-Butylbenzene	13.1	25	32.9	79	32.1	76	2	74-114/12
135-98-8	sec-Butylbenzene	8.8	25	30.4	86	29.3	82	4	76-118/12
98-06-6	tert-Butylbenzene	ND	25	20.4	82	19.5	78	5	72-116/14
108-90-7	Chlorobenzene	ND	25	22.7	91	22.0	88	3	74-111/11
75-00-3	Chloroethane	ND	25	25.7	103	25.1	100	2	75-135/15
67-66-3	Chloroform	ND	25	23.0	92	22.4	90	3	75-117/12
95-49-8	o-Chlorotoluene	ND	25	65.6	262* b	55.8	223* b	16* c	74-113/12
106-43-4	p-Chlorotoluene	ND	25	16.1	64* d	16.1	64* d	0	72-114/12
75-15-0	Carbon disulfide	ND	25	24.0	96	22.8	91	5	57-126/13
56-23-5	Carbon tetrachloride	ND	25	24.4	98	23.5	94	4	75-125/12
75-34-3	1,1-Dichloroethane	ND	25	23.8	95	23.0	92	3	76-121/13
75-35-4	1,1-Dichloroethylene	ND	25	24.7	99	24.6	98	0	71-128/19
563-58-6	1,1-Dichloropropene	ND	25	24.4	98	23.4	94	4	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	26.6	106	27.7	111	4	55-121/33
106-93-4	1,2-Dibromoethane	49.3	25	71.0	87	71.3	88	0	69-106/13
107-06-2	1,2-Dichloroethane	ND	25	185	740* b	185	740* b	0	70-111/14
78-87-5	1,2-Dichloropropane	ND	25	24.1	96	23.7	95	2	71-113/12
142-28-9	1,3-Dichloropropane	ND	25	21.4	86	21.5	86	0	69-106/12
594-20-7	2,2-Dichloropropane	ND	25	15.5	62* d	14.5	58* d	7	68-130/14
124-48-1	Dibromochloromethane	ND	25	21.8	87	21.9	88	0	69-104/12
75-71-8	Dichlorodifluoromethane	ND	25	26.7	107	25.4	102	5	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND	25	22.7	91	22.0	88	3	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	25	21.1	84	20.9	84	1	71-111/12
541-73-1	m-Dichlorobenzene	ND	25	21.9	88	21.8	87	0	74-110/12
95-50-1	o-Dichlorobenzene	ND	25	21.7	87	21.8	87	0	72-108/12
106-46-7	p-Dichlorobenzene	ND	25	21.8	87	21.6	86	1	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND	25	23.0	92	22.5	90	2	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND	25	20.6	82	20.5	82	0	75-111/12
100-41-4	Ethylbenzene	1270 c	25	967	32* a	959	0* a	1	75-112/12
591-78-6	2-Hexanone	51.8	125	163	89	169	94	4	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T79984
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D 50		07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Compound	T80288-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND	25	20.4	82	19.8	79	3		72-123/17
98-82-8	Isopropylbenzene	68.5	25	93.8	101	89.9	86	4		75-123/12
99-87-6	p-Isopropyltoluene	2.7	25	24.9	89	24.2	86	3		76-116/12
108-10-1	4-Methyl-2-pentanone	21.8	125	123	81	129	86	5		63-115/21
74-83-9	Methyl bromide	ND	25	24.3	97	23.7	95	3		59-132/15
74-87-3	Methyl chloride	ND	25	24.3	97	24.4	98	0		56-150/17
74-95-3	Methylene bromide	ND	25	22.5	90	22.9	92	2		68-114/13
75-09-2	Methylene chloride	ND	25	20.8	83	20.6	82	1		70-113/13
78-93-3	Methyl ethyl ketone	66.5	125	161	76	180	91	11		62-117/21
1634-04-4	Methyl Tert Butyl Ether	0.73	J	25	21.9	85	22.4	87	2	65-113/13
91-20-3	Naphthalene	498 ^c	25	418	104	431	156* ^a	3		53-127/34
103-65-1	n-Propylbenzene	158	25	179	84	173	60* ^a	3		74-115/12
100-42-5	Styrene	ND	25	46.6	186* ^b	46.0	184* ^b	1		76-110/11
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	21.1	84	20.7	83	2		72-108/11
71-55-6	1,1,1-Trichloroethane	ND	25	23.6	94	22.6	90	4		76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	24.3	97	24.7	99	2		67-110/20
79-00-5	1,1,2-Trichloroethane	0.71	J	25	22.4	87	22.2	86	1	69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND	25	20.8	83	21.3	85	2		51-128/31
96-18-4	1,2,3-Trichloropropane	ND	25	22.5	90	23.1	92	3		55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND	25	20.6	82	21.1	84	2		63-114/21
95-63-6	1,2,4-Trimethylbenzene	659 ^c	25	609	40* ^a	597	8* ^a	2		73-111/13
108-67-8	1,3,5-Trimethylbenzene	172	25	194	88	182	40* ^a	6		74-115/12
127-18-4	Tetrachloroethylene	ND	25	23.1	92	22.2	89	4		77-120/13
108-88-3	Toluene	ND	25	2000	80	1990	40* ^a	1		77-114/12
79-01-6	Trichloroethylene	ND	25	22.5	90	22.4	90	0		74-117/12
75-69-4	Trichlorofluoromethane	ND	25	26.9	108	25.4	102	6		64-132/18
75-01-4	Vinyl chloride	ND	25	23.5	94	22.4	90	5		64-121/19
1330-20-7	Xylene (total)	2990 ^c	75	2300	13* ^a	2280	13* ^a	1		75-111/12
	m,p-Xylene	1640 ^c	50	1240	20* ^a	1220	20* ^a	2		75-112/12
95-47-6	o-Xylene	1350 ^c	25	1060	0* ^a	1050	40* ^a	1		74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T80288-1	T80288-1	Limits
1868-53-7	Dibromofluoromethane	100%	102%	102%	100%	79-122%
17060-07-0	1,2-Dichloroethane-D4	93%	94%	95%	95%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D	50	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T79984-3

CAS No.	Surrogate Recoveries	MS	MSD	T80288-1	T80288-1	Limits
2037-26-5	Toluene-D8	98%	99%	98%	98%	87-119%
460-00-4	4-Bromofluorobenzene	100%	100%	101%	99%	80-133%

(a) Outside control limits due to high level in sample relative to spike amount. AZ: M3

(b) AZ: M1

(c) AZ: R9

(d) AZ: M2

(e) Result is from Run #2.



Gulf Coast

ACCUTEST

LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: T79984
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-MB	P18933.D	1	07/06/11	SC	06/30/11	OP19121	EP906

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	5.0	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	15	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.4	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.83	ug/l	
	3&4-Methylphenol	ND	5.0	1.6	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	6.7	ug/l	
87-86-5	Pentachlorophenol	ND	25	13	ug/l	
108-95-2	Phenol	ND	5.0	0.75	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.1	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.6	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
62-53-3	Aniline	ND	5.0	4.6	ug/l	
120-12-7	Anthracene	ND	5.0	1.1	ug/l	
92-87-5	Benzidine	ND	25	6.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.87	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.7	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.4	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.6	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.3	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.4	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	4.3	ug/l	
86-74-8	Carbazole	ND	5.0	1.5	ug/l	
218-01-9	Chrysene	ND	5.0	0.98	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.3	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	1.3	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.3	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T79984
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-MB	P18933.D	1	07/06/11	SC	06/30/11	OP19121	EP906

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.3	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.4	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.3	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	1.4	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.3	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	3.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.3	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.8	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.97	ug/l	
86-73-7	Fluorene	ND	5.0	1.3	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	5.2	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.8	ug/l	
78-59-1	Isophorone	ND	5.0	1.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.4	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	3.3	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	2.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.7	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.97	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.4	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.7	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.97	ug/l	
129-00-0	Pyrene	ND	5.0	1.7	ug/l	
110-86-1	Pyridine	ND	5.0	0.99	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	

Method Blank Summary

Page 3 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-MB	P18933.D	1	07/06/11	SC	06/30/11	OP19121	EP906

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	31% 10-66%
4165-62-2	Phenol-d5	24% 10-53%
118-79-6	2,4,6-Tribromophenol	76% 32-128%
4165-60-0	Nitrobenzene-d5	63% 29-115%
321-60-8	2-Fluorobiphenyl	60% 34-113%
1718-51-0	Terphenyl-d14	81% 12-145%

Blank Spike Summary

Page 1 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-BS	P18958.D	1	07/07/11	SC	06/30/11	OP19121	EP907

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	28.7	57	10-68
95-57-8	2-Chlorophenol	50	31.1	62	39-93
59-50-7	4-Chloro-3-methyl phenol	50	40.9	82	43-109
120-83-2	2,4-Dichlorophenol	50	38.4	77	42-106
105-67-9	2,4-Dimethylphenol	50	33.2	66	27-87
51-28-5	2,4-Dinitrophenol	50	52.4	105	43-107
534-52-1	4,6-Dinitro-o-cresol	50	55.6	111	47-112
95-48-7	2-Methylphenol	50	29.0	58	25-84
	3&4-Methylphenol	100	55.2	55	25-77
88-75-5	2-Nitrophenol	50	37.8	76	38-96
100-02-7	4-Nitrophenol	50	28.3	57	13-70
87-86-5	Pentachlorophenol	50	54.7	109	46-153
108-95-2	Phenol	50	15.4	31	10-53
95-95-4	2,4,5-Trichlorophenol	50	45.4	91	40-101
88-06-2	2,4,6-Trichlorophenol	50	42.8	86	41-102
83-32-9	Acenaphthene	50	38.3	77	41-110
208-96-8	Acenaphthylene	50	39.9	80	49-113
62-53-3	Aniline	50	29.2	58	24-132
120-12-7	Anthracene	50	43.3	87	59-105
56-55-3	Benzo(a)anthracene	50	47.5	95	64-112
50-32-8	Benzo(a)pyrene	50	41.0	82	62-116
205-99-2	Benzo(b)fluoranthene	50	46.7	93	62-114
191-24-2	Benzo(g,h,i)perylene	50	43.1	86	55-124
207-08-9	Benzo(k)fluoranthene	50	47.5	95	62-119
101-55-3	4-Bromophenyl phenyl ether	50	42.9	86	56-99
85-68-7	Butyl benzyl phthalate	50	50.5	101	52-125
100-51-6	Benzyl Alcohol	50	30.5	61	28-83
91-58-7	2-Chloronaphthalene	50	29.8	60	42-97
106-47-8	4-Chloroaniline	50	30.3	61	37-128
86-74-8	Carbazole	50	44.2	88	59-142
218-01-9	Chrysene	50	46.0	92	67-112
111-91-1	bis(2-Chloroethoxy)methane	50	35.8	72	38-96
111-44-4	bis(2-Chloroethyl)ether	50	28.9	58	37-91
108-60-1	bis(2-Chloroisopropyl)ether	50	32.8	66	36-102
7005-72-3	4-Chlorophenyl phenyl ether	50	41.7	83	48-101
95-50-1	1,2-Dichlorobenzene	50	31.4	63	33-86

Blank Spike Summary

Page 2 of 3

Job Number: T79984
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-BS	P18958.D	1	07/07/11	SC	06/30/11	OP19121	EP907

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
122-66-7	1,2-Diphenylhydrazine	50	42.0	84	39-118
541-73-1	1,3-Dichlorobenzene	50	29.5	59	21-88
106-46-7	1,4-Dichlorobenzene	50	29.6	59	31-86
121-14-2	2,4-Dinitrotoluene	50	47.2	94	55-112
606-20-2	2,6-Dinitrotoluene	50	43.1	86	57-105
91-94-1	3,3'-Dichlorobenzidine	50	27.9	56	50-142
53-70-3	Dibenzo(a,h)anthracene	50	43.8	88	55-123
132-64-9	Dibenzofuran	50	41.0	82	45-99
84-74-2	Di-n-butyl phthalate	50	43.2	86	64-114
117-84-0	Di-n-octyl phthalate	50	48.6	97	55-118
84-66-2	Diethyl phthalate	50	46.0	92	52-113
131-11-3	Dimethyl phthalate	50	42.9	86	38-112
117-81-7	bis(2-Ethylhexyl)phthalate	50	43.3	87	56-131
206-44-0	Fluoranthene	50	46.4	93	62-116
86-73-7	Fluorene	50	40.9	82	47-99
118-74-1	Hexachlorobenzene	50	43.0	86	62-102
87-68-3	Hexachlorobutadiene	50	32.8	66	37-91
77-47-4	Hexachlorocyclopentadiene	50	29.1	58	23-102
67-72-1	Hexachloroethane	50	28.8	58	33-86
193-39-5	Indeno(1,2,3-cd)pyrene	50	43.4	87	52-126
78-59-1	Isophorone	50	37.9	76	42-105
90-12-0	1-Methylnaphthalene	50	36.4	73	35-89
91-57-6	2-Methylnaphthalene	50	36.3	73	36-91
88-74-4	2-Nitroaniline	50	35.0	70	49-109
99-09-2	3-Nitroaniline	50	41.1	82	46-139
100-01-6	4-Nitroaniline	50	39.6	79	73-174
91-20-3	Naphthalene	50	33.1	66	37-89
98-95-3	Nitrobenzene	50	34.2	68	42-97
62-75-9	n-Nitrosodimethylamine	50	19.1	38	16-63
621-64-7	N-Nitroso-di-n-propylamine	50	39.5	79	42-102
86-30-6	N-Nitrosodiphenylamine	50	35.1	70	64-119
85-01-8	Phenanthrene	50	43.6	87	59-103
129-00-0	Pyrene	50	52.4	105	58-110
110-86-1	Pyridine	50	14.4	29	10-63
120-82-1	1,2,4-Trichlorobenzene	50	31.8	64	37-88

Blank Spike Summary

Page 3 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-BS	P18958.D	1	07/07/11	SC	06/30/11	OP19121	EP907

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	40%	10-66%
4165-62-2	Phenol-d5	32%	10-53%
118-79-6	2,4,6-Tribromophenol	117%	32-128%
4165-60-0	Nitrobenzene-d5	77%	29-115%
321-60-8	2-Fluorobiphenyl	80%	34-113%
1718-51-0	Terphenyl-d14	114%	12-145%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T79984
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-MS	P19011.D	1	07/08/11	SC	06/30/11	OP19121	EP909
OP19121-MSD	P19012.D	1	07/08/11	SC	06/30/11	OP19121	EP909
T79984-1	P19010.D	1	07/08/11	SC	06/30/11	OP19121	EP909

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Compound	T79984-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND	111	67.6	61	74.2	67	9	10-68/27
95-57-8	2-Chlorophenol	ND	111	49.6	45	52.0	47	5	39-93/28
59-50-7	4-Chloro-3-methyl phenol	ND	111	58.5	53	61.6	55	5	43-109/28
120-83-2	2,4-Dichlorophenol	ND	111	58.0	52	61.6	55	6	42-106/25
105-67-9	2,4-Dimethylphenol	ND	111	49.8	45	52.3	47	5	27-87/26
51-28-5	2,4-Dinitrophenol	ND	111	52.4	47	59.7	54	13	43-107/44
534-52-1	4,6-Dinitro-o-cresol	ND	111	72.4	65	78.4	71	8	47-112/24
95-48-7	2-Methylphenol	ND	111	48.7	44	52.0	47	7	25-84/31
	3&4-Methylphenol	ND	222	97.1	44	101	45	4	25-77/25
88-75-5	2-Nitrophenol	ND	111	56.8	51	60.6	55	6	38-96/26
100-02-7	4-Nitrophenol	ND	111	35.0	32	38.4	35	9	13-70/25
87-86-5	Pentachlorophenol	ND	111	63.6	57	69.9	63	9	46-153/18
108-95-2	Phenol	ND	111	32.5	29	34.3	31	5	10-53/35
95-95-4	2,4,5-Trichlorophenol	ND	111	64.6	58	67.7	61	5	40-101/22
88-06-2	2,4,6-Trichlorophenol	ND	111	60.9	55	64.5	58	6	41-102/22
83-32-9	Acenaphthene	ND	111	58.9	53	61.8	56	5	41-110/21
208-96-8	Acenaphthylene	ND	111	62.3	56	65.1	59	4	49-113/23
62-53-3	Aniline	ND	111	41.7	38	42.6	38	2	24-132/44
120-12-7	Anthracene	ND	111	65.1	59	68.0	61	4	59-105/18
56-55-3	Benzo(a)anthracene	ND	111	71.2	64	75.5	68	6	64-112/20
50-32-8	Benzo(a)pyrene	ND	111	71.0	64	74.8	67	5	62-116/23
205-99-2	Benzo(b)fluoranthene	ND	111	77.2	69	80.8	73	5	62-114/22
191-24-2	Benzo(g,h,i)perylene	ND	111	67.1	60	72.8	66	8	55-124/36
207-08-9	Benzo(k)fluoranthene	ND	111	92.6	83	87.6	79	6	62-119/30
101-55-3	4-Bromophenyl phenyl ether	ND	111	66.9	60	69.2	62	3	56-99/20
85-68-7	Butyl benzyl phthalate	ND	111	73.5	66	76.9	69	5	52-125/25
100-51-6	Benzyl Alcohol	ND	111	39.1	35	39.8	36	2	28-83/32
91-58-7	2-Chloronaphthalene	ND	111	46.0	41*	48.3	43	5	42-97/27
106-47-8	4-Chloroaniline	ND	111	38.0	34*	40.2	36*	6	37-128/29
86-74-8	Carbazole	ND	111	58.4	53*	60.4	54*	3	59-142/19
218-01-9	Chrysene	ND	111	72.6	65*	76.7	69	5	67-112/19
111-91-1	bis(2-Chloroethoxy)methane	ND	111	52.6	47	54.9	49	4	38-96/30
111-44-4	bis(2-Chloroethyl)ether	ND	111	45.3	41	47.3	43	4	37-91/33
108-60-1	bis(2-Chloroisopropyl)ether	ND	111	46.7	42	47.8	43	2	36-102/32
7005-72-3	4-Chlorophenyl phenyl ether	ND	111	63.9	58	67.8	61	6	48-101/21
95-50-1	1,2-Dichlorobenzene	ND	111	52.7	47	55.1	50	4	33-86/29

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-MS	P19011.D	1	07/08/11	SC	06/30/11	OP19121	EP909
OP19121-MSD	P19012.D	1	07/08/11	SC	06/30/11	OP19121	EP909
T79984-1	P19010.D	1	07/08/11	SC	06/30/11	OP19121	EP909

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Compound	T79984-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
122-66-7	1,2-Diphenylhydrazine	ND	111	60.7	55	61.4	55	1	30-122/34
541-73-1	1,3-Dichlorobenzene	ND	111	50.1	45	52.2	47	4	32-88/32
106-46-7	1,4-Dichlorobenzene	ND	111	50.6	46	53.4	48	5	31-86/36
121-14-2	2,4-Dinitrotoluene	ND	111	68.6	62	73.5	66	7	55-112/23
606-20-2	2,6-Dinitrotoluene	ND	111	64.1	58	66.4	60	4	57-105/23
91-94-1	3,3'-Dichlorobenzidine	ND	111	42.0	38*	44.4	40*	6	50-142/21
53-70-3	Dibenzo(a,h)anthracene	ND	111	69.6	63	77.2	69	10	55-123/37
132-64-9	Dibenzofuran	ND	111	62.4	56	66.2	60	6	45-99/20
84-74-2	Di-n-butyl phthalate	ND	111	66.2	60*	68.1	61*	3	64-114/16
117-84-0	Di-n-octyl phthalate	ND	111	95.5	86	94.7	85	1	55-118/25
84-66-2	Diethyl phthalate	ND	111	69.8	63	72.8	66	4	52-113/20
131-11-3	Dimethyl phthalate	ND	111	64.7	58	67.0	60	3	38-112/19
117-81-7	bis(2-Ethylhexyl)phthalate	ND	111	71.2	64	74.6	67	5	56-131/19
206-44-0	Fluoranthene	ND	111	65.9	59*	68.8	62	4	62-116/24
86-73-7	Fluorene	ND	111	62.3	56	66.5	60	7	47-99/22
118-74-1	Hexachlorobenzene	ND	111	69.0	62	72.2	65	5	62-102/21
87-68-3	Hexachlorobutadiene	ND	111	55.6	50	58.9	53	6	37-91/28
77-47-4	Hexachlorocyclopentadiene	ND	111	39.8	36	48.5	44	20	23-102/34
67-72-1	Hexachloroethane	ND	111	49.0	44	51.5	46	5	33-86/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND	111	69.7	63	76.9	69	10	52-126/30
78-59-1	Isophorone	ND	111	53.7	48	55.7	50	4	42-105/28
90-12-0	1-Methylnaphthalene	ND	111	57.6	52	60.2	54	4	35-89/25
91-57-6	2-Methylnaphthalene	ND	111	57.5	52	60.1	54	4	36-91/29
88-74-4	2-Nitroaniline	ND	111	47.2	42*	49.2	44*	4	49-109/22
99-09-2	3-Nitroaniline	ND	111	51.8	47	55.3	50	7	46-139/23
100-01-6	4-Nitroaniline	ND	111	49.6	45*	51.8	47*	4	73-174/24
91-20-3	Naphthalene	ND	111	53.3	48	56.1	50	5	37-89/24
98-95-3	Nitrobenzene	ND	111	51.7	47	53.8	48	4	42-97/26
62-75-9	n-Nitrosodimethylamine	ND	111	41.4	37	42.7	38	3	16-63/28
621-64-7	N-Nitroso-di-n-propylamine	ND	111	56.3	51	57.6	52	2	42-102/27
86-30-6	N-Nitrosodiphenylamine	ND	111	54.4	49*	56.0	50*	3	64-119/27
85-01-8	Phenanthrene	ND	111	66.0	59	68.9	62	4	59-103/19
129-00-0	Pyrene	ND	111	82.7	74	88.8	80	7	58-110/25
110-86-1	Pyridine	ND	111	24.4	22	25.0	23	2	10-63/48
120-82-1	1,2,4-Trichlorobenzene	ND	111	52.8	48	55.7	50	5	37-88/23

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T79984

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19121-MS	P19011.D	1	07/08/11	SC	06/30/11	OP19121	EP909
OP19121-MSD	P19012.D	1	07/08/11	SC	06/30/11	OP19121	EP909
T79984-1	P19010.D	1	07/08/11	SC	06/30/11	OP19121	EP909

The QC reported here applies to the following samples:

Method: SW846 8270C

T79984-1, T79984-2

CAS No.	Surrogate Recoveries	MS	MSD	T79984-1	Limits
367-12-4	2-Fluorophenol	42%	42%	32%	10-66%
4165-62-2	Phenol-d5	38%	39%	27%	10-53%
118-79-6	2,4,6-Tribromophenol	89%	92%	82%	32-128%
4165-60-0	Nitrobenzene-d5	53%	54%	50%	29-115%
321-60-8	2-Fluorobiphenyl	64%	66%	61%	34-113%
1718-51-0	Terphenyl-d14	90%	92%	108%	12-145%



Gulf Coast

ACCUTEST

LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T79984
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/01/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12		
Antimony	5.0	1	1		
Arsenic	5.0	1.7	1	-0.35	<5.0
Barium	200	.97	3.4	0.33	<200
Beryllium	5.0	.056	.16		
Boron	100	1.4	7.8		
Cadmium	4.0	.11	.09	0.030	<4.0
Calcium	5000	7.4	25	17.2	<5000
Chromium	10	.23	.27	0.31	<10
Cobalt	50	.15	.22		
Copper	25	1.1	5.9		
Iron	100	1.1	23	2.7	<100
Lead	3.0	1	1.8	0.060	<3.0
Lithium	300	2	2		
Magnesium	5000	7.7	7.9	10.6	<5000
Manganese	15	.054	1.9	0.77	<15
Molybdenum	10	.39	.2		
Nickel	40	.69	1.4		
Potassium	5000	39	45		
Selenium	5.0	1.5	.98	1.2	<5.0
Silver	10	1.2	.24	-0.50	<10
Sodium	5000	9.2	100	-3.5	<5000
Strontium	10	.061	.4		
Thallium	10	.67	1.2		
Tin	20	.69	2.8		
Titanium	20	.29	.3		
Vanadium	50	.3	.3		
Zinc	20	.51	3.5		

Associated samples MP15135: T79984-1F, T79984-2F, T79984-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79984
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

07/01/11

07/01/11

Metal	T79984-1F Original DUP		RPD	QC Limits	T79984-1F Original MS		Spikelot MPTW4	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	4.6	6.7	37.2 (a)	0-20	4.6	406	400	100.4	80-120
Barium	145	146	0.7	0-20	145	549	400	101.0	80-120
Beryllium									
Boron									
Cadmium	0.19	0.21	10.0	0-20	0.19	392	400	98.0	80-120
Calcium	30100	30000	0.3	0-20	30100	82000	50000	103.8	80-120
Chromium	0.67	0.69	2.9	0-20	0.67	427	400	106.6	80-120
Cobalt									
Copper									
Iron	59.1	55.7	5.9	0-20	59.1	52400	50000	104.7	80-120
Lead	1.0	1.4	33.3 (a)	0-20	1.0	399	400	99.5	80-120
Lithium									
Magnesium	14000	14200	1.4	0-20	14000	64900	50000	101.8	80-120
Manganese	525	523	0.4	0-20	525	947	400	105.5	80-120
Molybdenum									
Nickel									
Potassium									
Selenium	0.0	0.0	NC	0-20	0.0	414	400	103.5	80-120
Silver	0.0	0.0	NC	0-20	0.0	399	400	99.6	80-120
Sodium	165000	165000	0.0	0-20	165000	219000	50000	108.0	80-120
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP15135: T79984-1F, T79984-2F, T79984-3F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T79984
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

07/01/11

Metal	T79984-1F Original MSD		Spikelot MPTW4	% Rec.	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	4.6	411	400	101.6	1.2	20
Barium	145	555	400	102.5	1.1	20
Beryllium						
Boron						
Cadmium	0.19	390	400	97.5	0.5	20
Calcium	30100	82400	50000	104.6	0.5	20
Chromium	0.67	431	400	107.6	0.9	20
Cobalt						
Copper						
Iron	59.1	52600	50000	105.1	0.4	20
Lead	1.0	401	400	100.0	0.5	20
Lithium						
Magnesium	14000	65100	50000	102.2	0.3	20
Manganese	525	960	400	108.8	1.4	20
Molybdenum						
Nickel						
Potassium						
Selenium	0.0	421	400	105.3	1.7	20
Silver	0.0	401	400	100.3	0.5	20
Sodium	165000	218000	50000	106.0	0.5	20
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP15135: T79984-1F, T79984-2F, T79984-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T79984
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/01/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	396	400	99.0	80-120
Barium	405	400	101.3	80-120
Beryllium				
Boron				
Cadmium	389	400	97.3	80-120
Calcium	52300	50000	104.6	80-120
Chromium	430	400	107.5	80-120
Cobalt				
Copper				
Iron	52700	50000	105.4	80-120
Lead	395	400	98.8	80-120
Lithium				
Magnesium	51300	50000	102.6	80-120
Manganese	433	400	108.3	80-120
Molybdenum				
Nickel				
Potassium				
Selenium	412	400	103.0	80-120
Silver	394	400	98.5	80-120
Sodium	52500	50000	105.0	80-120
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15135: T79984-1F, T79984-2F, T79984-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T79984
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/01/11

Metal	T79984-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	4.56	0.00	100.0(a)	0-10
Barium	145	146	0.4	0-10
Beryllium				
Boron				
Cadmium	0.190	0.00	100.0(a)	0-10
Calcium	30100	30500	1.3	0-10
Chromium	0.670	1.26	88.1(a)	0-10
Cobalt				
Copper				
Iron	59.1	54.8	7.4	0-10
Lead	1.01	0.00	100.0(a)	0-10
Lithium				
Magnesium	14000	14300	2.1	0-10
Manganese	525	535	1.9	0-10
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	165000	167000	1.5	0-10
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15135: T79984-1F, T79984-2F, T79984-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



Gulf Coast

ACCUTEST

LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79984
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN32859	5.0	3.0	mg/l	2500	2480	99.0	80-120%
BOD, 5 Day	GP13679/GN32559	2.0	0.0	mg/l	198	215	108.6	70-136%
Chemical Oxygen Demand	GP13805/GN32805	20	0.0	mg/l	60	56.3	93.8	90-110%
Chemical Oxygen Demand	GP13822/GN32845	50	0.0	mg/l	500	482	96.4	90-110%
Chloride	GP13827/GN32848	0.50	0.0	mg/l	10	9.61	96.1	90-110%
Chloride	GP13841/GN32887	0.50	0.0	mg/l	10	9.29	92.9	90-110%
Nitrogen, Nitrate	GP13725/GN32647	0.50	0.0	mg/l	10	9.01	90.1	90-110%
Nitrogen, Nitrite	GP13725/GN32647	0.50	0.0	mg/l	10	9.44	94.4	90-110%
Solids, Total Dissolved	GN32609	10	0.0	mg/l	500	494	98.8	80-120%
Sulfate	GP13725/GN32647	0.50	0.0	mg/l	10	9.47	94.7	90-110%
Sulfate	GP13827/GN32848	0.50	0.0	mg/l	10	9.55	95.5	90-110%
Sulfate	GP13841/GN32887	0.50	0.0	mg/l	10	9.76	97.6	90-110%

Associated Samples:

Batch GN32609: T79984-1, T79984-2, T79984-3
Batch GN32859: T79984-1, T79984-2, T79984-3
Batch GP13679: T79984-1, T79984-2, T79984-3
Batch GP13725: T79984-1, T79984-2, T79984-3
Batch GP13805: T79984-1, T79984-2
Batch GP13822: T79984-3
Batch GP13827: T79984-1, T79984-3
Batch GP13841: T79984-2, T79984-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79984
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN32859	T79984-1	mg/l	320	99.0	0.0	0-10%
BOD, 5 Day	GP13679/GN32559	T79987-1	mg/l	1.7	1.7	0.0	0-23%
Chemical Oxygen Demand	GP13805/GN32805	T79984-1	mg/l	4.3	4.3	0.0	0-20%
Chemical Oxygen Demand	GP13822/GN32845	T79523-2	mg/l	405	397	2.0	0-20%
Chloride	GP13827/GN32848	T80117-3	mg/l	27.8	27.9	0.4	0-20%
Chloride	GP13841/GN32887	T80131-9	mg/l	592	590	0.3	0-20%
Nitrogen, Nitrate	GP13725/GN32647	T80116-1	mg/l	0.0	0.0	0.0	0-20%
Nitrogen, Nitrite	GP13725/GN32647	T80116-1	mg/l	0.0	0.0	0.0	0-20%
Solids, Total Dissolved	GN32609	T79984-1	mg/l	514	510	0.8	0-5%
Sulfate	GP13725/GN32647	T80116-1	mg/l	0.93	0.87	0.7	0-20%
Sulfate	GP13827/GN32848	T80117-3	mg/l	45.3	45.0	0.7	0-20%
Sulfate	GP13841/GN32887	T80131-9	mg/l	109	111	1.8	0-20%
pH	GN32516	T79984-3	su	7.02	7.04	0.3	0-6.8%

Associated Samples:

Batch GN32516: T79984-1, T79984-2, T79984-3
Batch GN32609: T79984-1, T79984-2, T79984-3
Batch GN32859: T79984-1, T79984-2, T79984-3
Batch GP13679: T79984-1, T79984-2, T79984-3
Batch GP13725: T79984-1, T79984-2, T79984-3
Batch GP13805: T79984-1, T79984-2
Batch GP13822: T79984-3
Batch GP13827: T79984-1, T79984-3
Batch GP13841: T79984-2, T79984-3
(*) Outside of QC limits

7.2
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T79984
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN32859	T79984-1	mg/l	320	25	123	96.0	79-122%
Chemical Oxygen Demand	GP13805/GN32805	T79984-1	mg/l	4.3	60	60.3	93.3	90-110%
Chemical Oxygen Demand	GP13822/GN32845	T79523-2	mg/l	405	500	679	54.8N	90-110%
Chloride	GP13827/GN32848	T80117-3	mg/l	27.8	50	74.3	93.0	80-120%
Chloride	GP13841/GN32887	T80131-9	mg/l	592	1000	1520	92.8	80-120%
Nitrogen, Nitrate	GP13725/GN32647	T80116-1	mg/l	0.0	10	9.2	92.0	80-120%
Nitrogen, Nitrite	GP13725/GN32647	T80116-1	mg/l	0.0	10	9.6	96.0	80-120%
Sulfate	GP13725/GN32647	T80116-1	mg/l	0.93	10	10.5	95.7	80-120%
Sulfate	GP13827/GN32848	T80117-3	mg/l	45.3	50	95.0	99.4	80-120%
Sulfate	GP13841/GN32887	T80131-9	mg/l	109	1000	1070	96.1	80-120%

Associated Samples:

Batch GN32859: T79984-1, T79984-2, T79984-3

Batch GP13725: T79984-1, T79984-2, T79984-3

Batch GP13805: T79984-1, T79984-2

Batch GP13822: T79984-3

Batch GP13827: T79984-1, T79984-3

Batch GP13841: T79984-2, T79984-3

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Gulf Coast
ACCUTEST
LABORATORIES

07/19/11

Technical Report for

Conoco Phillips

CRA: Wingate Fractionating Plant

COP-WINGATE

Accutest Job Number: T80117

Sampling Date: 06/29/11

Report to:

Conestoga Rovers & Associates
6121 Indian School Rd. NE, Ste. 200
Albuquerque, NM 87110
keblanchard@croworld.com; christine.mathews@tetrattech.com;
cassandre.brown@tetrattech.com
ATTN: Kelly Blanchard

Total number of pages in report: 77



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Erica Cardenas 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

Sections:



-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: T80117-1: GW-075006-062911-CFM-004	5
2.2: T80117-1F: GW-075006-062911-CFM-004 (DISSOLVED)	12
2.3: T80117-2: GW-075006-062911-CFM-005	13
2.4: T80117-2F: GW-075006-062911-CFM-005 (DISSOLVED)	20
2.5: T80117-3: GW-075006-062911-CFM-006	21
2.6: T80117-3F: GW-075006-062911-CFM-006 (DISSOLVED)	28
2.7: T80117-4: TB-062911-001	29
Section 3: Misc. Forms	32
3.1: Chain of Custody	33
Section 4: GC/MS Volatiles - QC Data Summaries	39
4.1: Method Blank Summary	40
4.2: Blank Spike Summary	46
4.3: Matrix Spike/Matrix Spike Duplicate Summary	52
Section 5: GC/MS Semi-volatiles - QC Data Summaries	58
5.1: Method Blank Summary	59
5.2: Blank Spike Summary	62
5.3: Matrix Spike/Matrix Spike Duplicate Summary	65
Section 6: Metals Analysis - QC Data Summaries	68
6.1: Prep QC MP15135: As,Ba,Cd,Ca,Cr,Fe,Pb,Mg,Mn,Se,Ag,Na	69
Section 7: General Chemistry - QC Data Summaries	74
7.1: Method Blank and Spike Results Summary	75
7.2: Duplicate Results Summary	76
7.3: Matrix Spike Results Summary	77

Sample Summary

Conoco Phillips

Job No: T80117

CRA: Wingate Fractionating Plant
Project No: COP-WINGATE

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T80117-1	06/29/11	09:50	06/30/11	AQ	Ground Water	GW-075006-062911-CFM-004
T80117-1F	06/29/11	09:50	06/30/11	AQ	Groundwater Filtered	GW-075006-062911-CFM-004 (DISSOLVED)
T80117-2	06/29/11	12:40	06/30/11	AQ	Ground Water	GW-075006-062911-CFM-005
T80117-2F	06/29/11	12:40	06/30/11	AQ	Groundwater Filtered	GW-075006-062911-CFM-005 (DISSOLVED)
T80117-3	06/29/11	15:00	06/30/11	AQ	Ground Water	GW-075006-062911-CFM-006
T80117-3F	06/29/11	15:00	06/30/11	AQ	Groundwater Filtered	GW-075006-062911-CFM-006 (DISSOLVED)
T80117-4	06/29/11	16:20	06/30/11	AQ	Trip Blank Water	TB-062911-001



Gulf Coast

ACCUTEST

LABORATORIES

2

Sample Results

Report of Analysis



4 of 77

ACCUTEST
LABORATORIES

T80117

Report of Analysis

Client Sample ID:	GW-075006-062911-CFM-004	Date Sampled:	06/29/11
Lab Sample ID:	T80117-1	Date Received:	06/30/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0074027.D	1	07/06/11	JL	n/a	n/a	VX1091
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-004
 Lab Sample ID: T80117-1
 Matrix: AQ - Ground Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
 Date Received: 06/30/11
 Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		79-122%
17060-07-0	1,2-Dichloroethane-D4	86%		75-121%
2037-26-5	Toluene-D8	89%		87-119%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	GW-075006-062911-CFM-004	Date Sampled:	06/29/11
Lab Sample ID:	T80117-1	Date Received:	06/30/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-004
 Lab Sample ID: T80117-1
 Matrix: AQ - Ground Water
 Method: SW846 8270C SW846 3510C
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
 Date Received: 06/30/11
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W6482.D	1	07/10/11	GJ	07/03/11	OP19154	EW326
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.010	0.0051	mg/l	
95-57-8	2-Chlorophenol	ND	0.0051	0.0012	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0051	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0051	0.0023	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0051	0.0013	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.015	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.010	0.0014	mg/l	
95-48-7	2-Methylphenol	ND	0.0051	0.00085	mg/l	
	3&4-Methylphenol	ND	0.0051	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0051	0.0020	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.0068	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.013	mg/l	
108-95-2	Phenol	ND	0.0051	0.00077	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0051	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0051	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0051	0.0016	mg/l	
208-96-8	Acenaphthylene	ND	0.0051	0.0012	mg/l	
62-53-3	Aniline	ND	0.0051	0.0047	mg/l	
120-12-7	Anthracene	ND	0.0051	0.0011	mg/l	
92-87-5	Benzidine	ND	0.026	0.0061	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0051	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0051	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0051	0.00089	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0051	0.0017	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0051	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0051	0.0014	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0051	0.0017	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0051	0.0013	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0051	0.0014	mg/l	
106-47-8	4-Chloroaniline	ND	0.0051	0.0043	mg/l	
86-74-8	Carbazole	ND	0.0051	0.0015	mg/l	
218-01-9	Chrysene	ND	0.0051	0.0010	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-004
Lab Sample ID: T80117-1
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
Date Received: 06/30/11
Percent Solids: n/a

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0051	0.0013	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0051	0.0013	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0051	0.0020	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0051	0.0013	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0051	0.0014	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0051	0.0015	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0051	0.0014	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.010	0.0033	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0051	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0051	0.0014	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0051	0.0010	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0051	0.0013	mg/l	
84-66-2	Diethyl phthalate	ND	0.0051	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0051	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.0025	0.0051	0.0018	mg/l	J
206-44-0	Fluoranthene	ND	0.0051	0.00099	mg/l	
86-73-7	Fluorene	ND	0.0051	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0051	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0051	0.0011	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.010	0.0053	mg/l	
67-72-1	Hexachloroethane	ND	0.0051	0.00099	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0051	0.0018	mg/l	
78-59-1	Isophorone	ND	0.0051	0.0012	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0051	0.0011	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0051	0.0013	mg/l	
88-74-4	2-Nitroaniline	ND	0.0051	0.0014	mg/l	
99-09-2	3-Nitroaniline	ND	0.0051	0.0034	mg/l	
100-01-6	4-Nitroaniline	ND	0.0051	0.0024	mg/l	
91-20-3	Naphthalene	ND	0.0051	0.0012	mg/l	
98-95-3	Nitrobenzene	ND	0.0051	0.0018	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0051	0.00099	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0051	0.0014	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0051	0.0017	mg/l	
85-01-8	Phenanthrene	ND	0.0051	0.00099	mg/l	
129-00-0	Pyrene	ND	0.0051	0.0017	mg/l	
110-86-1	Pyridine	ND	0.0051	0.0010	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0051	0.0013	mg/l	

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-062911-CFM-004	Date Sampled: 06/29/11
Lab Sample ID: T80117-1	Date Received: 06/30/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270C SW846 3510C	
Project: CRA: Wingate Fractionating Plant	

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		10-66%
4165-62-2	Phenol-d5	47%		10-53%
118-79-6	2,4,6-Tribromophenol	70%		32-128%
4165-60-0	Nitrobenzene-d5	79%		29-115%
321-60-8	2-Fluorobiphenyl	65%		34-113%
1718-51-0	Terphenyl-d14	77%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-062911-CFM-004
Lab Sample ID: T80117-1
Matrix: AQ - Ground Water
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
Date Received: 06/30/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	446	10	mg/l	1	07/12/11 09:00	MC	SM 2320B
Chemical Oxygen Demand	< 20	20	mg/l	1	07/12/11	BF	SM 5220D
Chloride	70.9	25	mg/l	50	07/09/11 21:27	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	06/30/11 15:40	ES	EPA 300/SW846 9056
Solids, Total Dissolved	1060	10	mg/l	1	07/05/11	BG	SM 2540C
Sulfate	374	25	mg/l	50	07/09/11 21:27	ES	EPA 300/SW846 9056
pH	7.48		su	1	07/08/11 15:07	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-062911-CFM-004 (DISSOLVED)	Date Sampled: 06/29/11
Lab Sample ID: T80117-1F	Date Received: 06/30/11
Matrix: AQ - Groundwater Filtered.	Percent Solids: n/a
Project: CRA: Wingate Fractionating Plant	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Barium	< 200	200	ug/l	1	07/01/11	07/10/11 EG	SW846 6010B ²	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Calcium	46100	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Iron	232	100	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Magnesium	16200	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Manganese	53.0	15	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Sodium	308000	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³

(1) Instrument QC Batch: MA5895

(2) Instrument QC Batch: MA5903

(3) Prep QC Batch: MP15135

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GW-075006-062911-CFM-005	Date Sampled:	06/29/11
Lab Sample ID:	T80117-2	Date Received:	06/30/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036329.D	1	07/10/11	JL	n/a	n/a	VM1484
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-062911-CFM-005	Date Sampled:	06/29/11
Lab Sample ID:	T80117-2	Date Received:	06/30/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		79-122%
17060-07-0	1,2-Dichloroethane-D4	104%		75-121%
2037-26-5	Toluene-D8	100%		87-119%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	GW-075006-062911-CFM-005	Date Sampled:	06/29/11
Lab Sample ID:	T80117-2	Date Received:	06/30/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	112%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-005
 Lab Sample ID: T80117-2
 Matrix: AQ - Ground Water
 Method: SW846 8270C SW846 3510C
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
 Date Received: 06/30/11
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W6483.D	1	07/10/11	GJ	07/03/11	OP19154	EW326
Run #2							

Run #	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.011	0.0055	mg/l	
95-57-8	2-Chlorophenol	ND	0.0055	0.0013	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0055	0.0013	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0055	0.0024	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0055	0.0014	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.027	0.017	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0015	mg/l	
95-48-7	2-Methylphenol	ND	0.0055	0.00092	mg/l	
	3&4-Methylphenol	ND	0.0055	0.0017	mg/l	
88-75-5	2-Nitrophenol	ND	0.0055	0.0022	mg/l	
100-02-7	4-Nitrophenol	ND	0.027	0.0073	mg/l	
87-86-5	Pentachlorophenol	ND	0.027	0.015	mg/l	
108-95-2	Phenol	ND	0.0055	0.00083	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0055	0.0013	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0055	0.0013	mg/l	
83-32-9	Acenaphthene	ND	0.0055	0.0017	mg/l	
208-96-8	Acenaphthylene	ND	0.0055	0.0013	mg/l	
62-53-3	Aniline	ND	0.0055	0.0050	mg/l	
120-12-7	Anthracene	ND	0.0055	0.0012	mg/l	
92-87-5	Benzydine	ND	0.027	0.0066	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0055	0.0012	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0055	0.0012	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0055	0.00095	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0055	0.0018	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0055	0.0012	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0055	0.0015	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0055	0.0018	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0055	0.0014	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0055	0.0015	mg/l	
106-47-8	4-Chloroaniline	ND	0.0055	0.0047	mg/l	
86-74-8	Carbazole	ND	0.0055	0.0016	mg/l	
218-01-9	Chrysene	ND	0.0055	0.0011	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-005
Lab Sample ID: T80117-2
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11

Date Received: 06/30/11

Percent Solids: n/a

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0055	0.0014	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0055	0.0014	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0055	0.0022	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0055	0.0014	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0055	0.0014	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0055	0.0015	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0055	0.0014	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0055	0.0014	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0055	0.0016	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0055	0.0015	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0035	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0055	0.0017	mg/l	
132-64-9	Dibenzofuran	ND	0.0055	0.0015	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0055	0.0011	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0055	0.0014	mg/l	
84-66-2	Diethyl phthalate	ND	0.0055	0.0012	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0055	0.0012	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0055	0.0019	mg/l	
206-44-0	Fluoranthene	ND	0.0055	0.0011	mg/l	
86-73-7	Fluorene	ND	0.0055	0.0015	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0055	0.0015	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0055	0.0012	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0057	mg/l	
67-72-1	Hexachloroethane	ND	0.0055	0.0011	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0055	0.0020	mg/l	
78-59-1	Isophorone	ND	0.0055	0.0013	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0055	0.0012	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0055	0.0014	mg/l	
88-74-4	2-Nitroaniline	ND	0.0055	0.0016	mg/l	
99-09-2	3-Nitroaniline	ND	0.0055	0.0036	mg/l	
100-01-6	4-Nitroaniline	ND	0.0055	0.0026	mg/l	
91-20-3	Naphthalene	ND	0.0055	0.0012	mg/l	
98-95-3	Nitrobenzene	ND	0.0055	0.0019	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0055	0.0011	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0055	0.0016	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0055	0.0018	mg/l	
85-01-8	Phenanthrene	ND	0.0055	0.0011	mg/l	
129-00-0	Pyrene	ND	0.0055	0.0018	mg/l	
110-86-1	Pyridine	ND	0.0055	0.0011	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0055	0.0014	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-062911-CFM-005	Date Sampled: 06/29/11
Lab Sample ID: T80117-2	Date Received: 06/30/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270C SW846 3510C	
Project: CRA: Wingate Fractionating Plant	

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%		10-66%
4165-62-2	Phenol-d5	25%		10-53%
118-79-6	2,4,6-Tribromophenol	84%		32-128%
4165-60-0	Nitrobenzene-d5	70%		29-115%
321-60-8	2-Fluorobiphenyl	73%		34-113%
1718-51-0	Terphenyl-d14	75%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-062911-CFM-005
Lab Sample ID: T80117-2
Matrix: AQ - Ground Water
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
Date Received: 06/30/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	664	20	mg/l	1	07/12/11 09:00	MC	SM 2320B
BOD, 5 Day	< 2.0	2.0	mg/l	1	06/30/11 22:03	OT	SM 5210B
Chemical Oxygen Demand	< 20	20	mg/l	1	07/09/11	BF	SM 5220D
Chloride	58.0	5.0	mg/l	10	07/09/11 21:44	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	06/30/11 15:57	ES	EPA 300/SW846 9056
Solids, Total Dissolved	1010	10	mg/l	1	07/05/11	BG	SM 2540C
Sulfate	122	5.0	mg/l	10	07/09/11 21:44	ES	EPA 300/SW846 9056
pH	7.81		su	1	07/08/11 15:07	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-062911-CFM-005 (DISSOLVED)

Lab Sample ID: T80117-2F

Date Sampled: 06/29/11

Matrix: AQ - Groundwater Filtered

Date Received: 06/30/11

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	9.4	5.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Barium	205	200	ug/l	1	07/01/11	07/10/11 EG	SW846 6010B ²	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Calcium	14000	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Iron	175	100	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Magnesium	7450	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Manganese	330	15	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Sodium	363000	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³

(1) Instrument QC Batch: MA5895

(2) Instrument QC Batch: MA5903

(3) Prep QC Batch: MP15135

RL = Reporting Limit

Report of Analysis

Client Sample ID:	GW-075006-062911-CFM-006	Date Sampled:	06/29/11
Lab Sample ID:	T80117-3	Date Received:	06/30/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036330.D	1	07/10/11	JL	n/a	n/a	VM1484
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-006
 Lab Sample ID: T80117-3
 Matrix: AQ - Ground Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
 Date Received: 06/30/11
 Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		79-122%
17060-07-0	1,2-Dichloroethane-D4	103%		75-121%
2037-26-5	Toluene-D8	101%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-062911-CFM-006
Lab Sample ID: T80117-3
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
Date Received: 06/30/11
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	112%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-006
Lab Sample ID: T80117-3
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
Date Received: 06/30/11
Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W6484.D	1	07/10/11	GJ	07/03/11	OP19154	EW326
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.011	0.0052	mg/l	
95-57-8	2-Chlorophenol	ND	0.0053	0.0013	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0053	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0053	0.0023	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0053	0.0013	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.016	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0014	mg/l	
95-48-7	2-Methylphenol	ND	0.0053	0.00088	mg/l	
	3&4-Methylphenol	ND	0.0053	0.0017	mg/l	
88-75-5	2-Nitrophenol	ND	0.0053	0.0021	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.0070	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.014	mg/l	
108-95-2	Phenol	ND	0.0053	0.00079	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0053	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0053	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0053	0.0016	mg/l	
208-96-8	Acenaphthylene	ND	0.0053	0.0013	mg/l	
62-53-3	Aniline	ND	0.0053	0.0048	mg/l	
120-12-7	Anthracene	ND	0.0053	0.0012	mg/l	
92-87-5	Benztidine	ND	0.026	0.0063	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0053	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0053	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0053	0.00091	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0053	0.0017	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0053	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0053	0.0015	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0053	0.0017	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0053	0.0014	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0053	0.0015	mg/l	
106-47-8	4-Chloroaniline	ND	0.0053	0.0045	mg/l	
86-74-8	Carbazole	ND	0.0053	0.0016	mg/l	
218-01-9	Chrysene	ND	0.0053	0.0010	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-006
Lab Sample ID: T80117-3
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11

Date Received: 06/30/11

Percent Solids: n/a

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0053	0.0014	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0053	0.0014	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0053	0.0021	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0053	0.0014	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0053	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0053	0.0014	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0053	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0053	0.0014	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0053	0.0015	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0053	0.0014	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0034	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0053	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0053	0.0014	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0053	0.0011	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0053	0.0014	mg/l	
84-66-2	Diethyl phthalate	ND	0.0053	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0053	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.0340	0.0053	0.0019	mg/l	
206-44-0	Fluoranthene	ND	0.0053	0.0010	mg/l	
86-73-7	Fluorene	ND	0.0053	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0053	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0053	0.0012	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0054	mg/l	
67-72-1	Hexachloroethane	ND	0.0053	0.0010	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0053	0.0019	mg/l	
78-59-1	Isophorone	ND	0.0053	0.0013	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0053	0.0011	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0053	0.0013	mg/l	
88-74-4	2-Nitroaniline	ND	0.0053	0.0015	mg/l	
99-09-2	3-Nitroaniline	ND	0.0053	0.0035	mg/l	
100-01-6	4-Nitroaniline	ND	0.0053	0.0025	mg/l	
91-20-3	Naphthalene	ND	0.0053	0.0012	mg/l	
98-95-3	Nitrobenzene	ND	0.0053	0.0018	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0053	0.0010	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	0.0071	0.0053	0.0015	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0053	0.0018	mg/l	
85-01-8	Phenanthrene	ND	0.0053	0.0010	mg/l	
129-00-0	Pyrene	ND	0.0053	0.0017	mg/l	
110-86-1	Pyridine	ND	0.0053	0.0010	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0053	0.0013	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-062911-CFM-006	Date Sampled:	06/29/11
Lab Sample ID:	T80117-3	Date Received:	06/30/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	52%		10-66%
4165-62-2	Phenol-d5	32%		10-53%
118-79-6	2,4,6-Tribromophenol	43%		32-128%
4165-60-0	Nitrobenzene-d5	44%		29-115%
321-60-8	2-Fluorobiphenyl	36%		34-113%
1718-51-0	Terphenyl-d14	58%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-062911-CFM-006
Lab Sample ID: T80117-3
Matrix: AQ - Ground Water
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11**Date Received:** 06/30/11**Percent Solids:** n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	620	20	mg/l	1	07/12/11 09:00	MC	SM 2320B
BOD, 5 Day	< 2.0	2.0	mg/l	1	06/30/11 22:37	OT	SM 5210B
Chemical Oxygen Demand	32.3	20	mg/l	1	07/12/11	BF	SM 5220D
Chloride	27.8	2.5	mg/l	5	07/09/11 22:01	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	06/30/11 16:14	ES	EPA 300/SW846 9056
Solids, Total Dissolved	813	10	mg/l	1	07/05/11	BG	SM 2540C
Sulfate	45.3	2.5	mg/l	5	07/09/11 22:01	ES	EPA 300/SW846 9056
pH	8.00		su	1	07/08/11 15:07	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-062911-CFM-006 (DISSOLVED)

Lab Sample ID: T80117-3F

Date Sampled: 06/29/11

Matrix: AQ - Groundwater Filtered

Date Received: 06/30/11

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Barium	254	200	ug/l	1	07/01/11	07/10/11 EG	SW846 6010B ²	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Calcium	11400	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Iron	145	100	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Magnesium	6210	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Manganese	266	15	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³
Sodium	314000	5000	ug/l	1	07/01/11	07/08/11 EG	SW846 6010B ¹	SW846 3010A ³

(1) Instrument QC Batch: MA5895

(2) Instrument QC Batch: MA5903

(3) Prep QC Batch: MP15135

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB-062911-001	Date Sampled:	06/29/11
Lab Sample ID:	T80117-4	Date Received:	06/30/11
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036331.D	1	07/10/11	JL	n/a	n/a	VM1484
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.0466	0.050	0.010	mg/l	J
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TB-062911-001
 Lab Sample ID: T80117-4
 Matrix: AQ - Trip Blank Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/29/11
 Date Received: 06/30/11
 Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	0.0042	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	0.00043	0.0010	0.00026	mg/l	J
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		79-122%
17060-07-0	1,2-Dichloroethane-D4	101%		75-121%
2037-26-5	Toluene-D8	101%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: TB-062911-001	Date Sampled: 06/29/11
Lab Sample ID: T80117-4	Date Received: 06/30/11
Matrix: AQ - Trip Blank Water	Percent Solids: n/a
Method: SW846 8260B	
Project: CRA: Wingate Fractionating Plant	

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	115%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Gulf Coast

ACCUTEST®

LABORATORIES



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
10165 Harwin Drive, Suite 150, Houston, TX 77036
TEL: 713-371-4700 FAX: 713-271-4770
www.accutest.com

PAGE 1 OF 2

Client / Reporting Information		Project Information		Requested Analyses		Matrix Codes	
Company Name CRA		Project Name Wingate Fracturing Plant		Requested Analyses		Matrix Codes	
Street Address 6121 Indian School Rd. NE, Ste. 200		Billing Information (If different from Report to)					
City Albuquerque		Company Name ConocoPhillips					
State NM		Street Address 1358 Phillips Bldg., 420 S. Keeler Ave.					
Zip 87110		City Bartlesville					
Project Contact Kelly Blanchard		State OK					
E-mail kblanchard@tetra-tech.com		Zip 74004					
Phone # 505-237-8440		Attention: Tom Wynn					
Fax # 505-237-8656		Client Purchase Order # 075006					
Sample(s) Name(s) Christine Matthews		Project Manager Tom Wynn					
Field ID / Point of Collection		Date		Time		LAB USE ONLY	
1 SW-075006-062911-CFM-004		6-29-11		0950		X	
2 SW-075006-062911-CFM-005		6-29-11		0950		X	
3 SW-075006-062911-CFM-006		6-29-11		0950		X	
4 SW-075006-062911-CFM-007		6-29-11		0950		X	
5 SW-075006-062911-CFM-008		6-29-11		0950		X	
6 SW-075006-062911-CFM-009		6-29-11		0950		X	
7 SW-075006-062911-CFM-010		6-29-11		0950		X	
8 SW-075006-062911-CFM-011		6-29-11		0950		X	
9 SW-075006-062911-CFM-012		6-29-11		0950		X	
10 SW-075006-062911-CFM-013		6-29-11		0950		X	
11 SW-075006-062911-CFM-014		6-29-11		0950		X	
12 SW-075006-062911-CFM-015		6-29-11		0950		X	
13 SW-075006-062911-CFM-016		6-29-11		0950		X	
14 SW-075006-062911-CFM-017		6-29-11		0950		X	
15 SW-075006-062911-CFM-018		6-29-11		0950		X	
16 SW-075006-062911-CFM-019		6-29-11		0950		X	
17 SW-075006-062911-CFM-020		6-29-11		0950		X	
18 SW-075006-062911-CFM-021		6-29-11		0950		X	
19 SW-075006-062911-CFM-022		6-29-11		0950		X	
20 SW-075006-062911-CFM-023		6-29-11		0950		X	
21 SW-075006-062911-CFM-024		6-29-11		0950		X	
22 SW-075006-062911-CFM-025		6-29-11		0950		X	
23 SW-075006-062911-CFM-026		6-29-11		0950		X	
24 SW-075006-062911-CFM-027		6-29-11		0950		X	
25 SW-075006-062911-CFM-028		6-29-11		0950		X	
26 SW-075006-062911-CFM-029		6-29-11		0950		X	
27 SW-075006-062911-CFM-030		6-29-11		0950		X	
28 SW-075006-062911-CFM-031		6-29-11		0950		X	
29 SW-075006-062911-CFM-032		6-29-11		0950		X	
30 SW-075006-062911-CFM-033		6-29-11		0950		X	
31 SW-075006-062911-CFM-034		6-29-11		0950		X	
32 SW-075006-062911-CFM-035		6-29-11		0950		X	
33 SW-075006-062911-CFM-036		6-29-11		0950		X	
34 SW-075006-062911-CFM-037		6-29-11		0950		X	
35 SW-075006-062911-CFM-038		6-29-11		0950		X	
36 SW-075006-062911-CFM-039		6-29-11		0950		X	
37 SW-075006-062911-CFM-040		6-29-11		0950		X	
38 SW-075006-062911-CFM-041		6-29-11		0950		X	
39 SW-075006-062911-CFM-042		6-29-11		0950		X	
40 SW-075006-062911-CFM-043		6-29-11		0950		X	
41 SW-075006-062911-CFM-044		6-29-11		0950		X	
42 SW-075006-062911-CFM-045		6-29-11		0950		X	
43 SW-075006-062911-CFM-046		6-29-11		0950		X	
44 SW-075006-062911-CFM-047		6-29-11		0950		X	
45 SW-075006-062911-CFM-048		6-29-11		0950		X	
46 SW-075006-062911-CFM-049		6-29-11		0950		X	
47 SW-075006-062911-CFM-050		6-29-11		0950		X	
48 SW-075006-062911-CFM-051		6-29-11		0950		X	
49 SW-075006-062911-CFM-052		6-29-11		0950		X	
50 SW-075006-062911-CFM-053		6-29-11		0950		X	
51 SW-075006-062911-CFM-054		6-29-11		0950		X	
52 SW-075006-062911-CFM-055		6-29-11		0950		X	
53 SW-075006-062911-CFM-056		6-29-11		0950		X	
54 SW-075006-062911-CFM-057		6-29-11		0950		X	
55 SW-075006-062911-CFM-058		6-29-11		0950		X	
56 SW-075006-062911-CFM-059		6-29-11		0950		X	
57 SW-075006-062911-CFM-060		6-29-11		0950		X	
58 SW-075006-062911-CFM-061		6-29-11		0950		X	
59 SW-075006-062911-CFM-062		6-29-11		0950		X	
60 SW-075006-062911-CFM-063		6-29-11		0950		X	
61 SW-075006-062911-CFM-064		6-29-11		0950		X	
62 SW-075006-062911-CFM-065		6-29-11		0950		X	
63 SW-075006-062911-CFM-066		6-29-11		0950		X	
64 SW-075006-062911-CFM-067		6-29-11		0950		X	
65 SW-075006-062911-CFM-068		6-29-11		0950		X	
66 SW-075006-062911-CFM-069		6-29-11		0950		X	
67 SW-075006-062911-CFM-070		6-29-11		0950		X	
68 SW-075006-062911-CFM-071		6-29-11		0950		X	
69 SW-075006-062911-CFM-072		6-29-11		0950		X	
70 SW-075006-062911-CFM-073		6-29-11		0950		X	
71 SW-075006-062911-CFM-074		6-29-11		0950		X	
72 SW-075006-062911-CFM-075		6-29-11		0950		X	
73 SW-075006-062911-CFM-076		6-29-11		0950		X	
74 SW-075006-062911-CFM-077		6-29-11		0950		X	
75 SW-075006-062911-CFM-078		6-29-11		0950		X	
76 SW-075006-062911-CFM-079		6-29-11		0950		X	
77 SW-075006-062911-CFM-080		6-29-11		0950		X	
78 SW-075006-062911-CFM-081		6-29-11		0950		X	
79 SW-075006-062911-CFM-082		6-29-11		0950		X	
80 SW-075006-062911-CFM-083		6-29-11		0950		X	
81 SW-075006-062911-CFM-084		6-29-11		0950		X	
82 SW-075006-062911-CFM-085		6-29-11		0950		X	
83 SW-075006-062911-CFM-086		6-29-11		0950		X	
84 SW-075006-062911-CFM-087		6-29-11		0950		X	
85 SW-075006-062911-CFM-088		6-29-11		0950		X	
86 SW-075006-062911-CFM-089		6-29-11		0950		X	
87 SW-075006-062911-CFM-090		6-29-11		0950		X	
88 SW-075006-062911-CFM-091		6-29-11		0950		X	
89 SW-075006-062911-CFM-092		6-29-11		0950		X	
90 SW-075006-062911-CFM-093		6-29-11		0950		X	
91 SW-075006-062911-CFM-094		6-29-11		0950		X	
92 SW-075006-062911-CFM-095		6-29-11		0950		X	
93 SW-075006-062911-CFM-096		6-29-11		0950		X	
94 SW-075006-062911-CFM-097		6-29-11		0950		X	
95 SW-075006-062911-CFM-098		6-29-11		0950		X	
96 SW-075006-062911-CFM-099		6-29-11		0950		X	
97 SW-075006-062911-CFM-100		6-29-11		0950		X	
98 SW-075006-062911-CFM-101		6-29-11		0950		X	
99 SW-075006-062911-CFM-102		6-29-11		0950		X	
100 SW-075006-062911-CFM-103		6-29-11		0950		X	
101 SW-075006-062911-CFM-104		6-29-11		0950		X	
102 SW-075006-062911-CFM-105		6-29-11		0950		X	
103 SW-075006-062911-CFM-106		6-29-11		0950		X	
104 SW-075006-062911-CFM-107		6-29-11		0950		X	
105 SW-075006-062911-CFM-108		6-29-11		0950		X	
106 SW-075006-062911-CFM-109		6-29-11		0950		X	
107 SW-075006-062911-CFM-110		6-29-11		0950		X	
108 SW-075006-062911-CFM-111		6-29-11		0950		X	
109 SW-075006-062911-CFM-112		6-29-11		0950		X	
110 SW-075006-062911-CFM-113		6-29-11		0950		X	
111 SW-075006-062911-CFM-114		6-29-11		0950		X	
112 SW-075006-062911-CFM-115		6-29-11		0950		X	
113 SW-075006-062911-CFM-116		6-29-11		0950		X	
114 SW-075006-062911-CFM-117		6-29-11		0950		X	
115 SW-075006-062911-CFM-118		6-29-11		0950		X	
116 SW-075006-062911-CFM-119		6-29-11		0950		X	
117 SW-075006-062911-CFM-120		6-29-11		0950		X	
118 SW-075006-062911-CFM-121		6-29-11		0950		X	
119 SW-075006-062911-CFM-122		6-29-11		0950		X	
120 SW-075006-062911-CFM-123		6-29-11		0950		X	
121 SW-075006-062911-CFM-124		6-29-11		0950		X	
122 SW-075006-062911-CFM-125		6-29-11		0950		X	
123 SW-075006-062911-CFM-126		6-29-11		0950		X	
124 SW-075006-062911-CFM-127		6-29-11		0950		X	
125 SW-075006-062911-CFM-128		6-29-11		0950		X	
126 SW-075006-062911-CFM-129		6-29-11		0950		X	
127 SW-075006-062911-CFM-130		6-29-11		0950		X	
128 SW-075006-062911-CFM-131		6-29-11		0950		X	
129 SW-075006-062911-CFM-132		6-29-11		0950		X	
130 SW-075006-062911-CFM-133		6-29-11		0950		X	
131 SW-075006-062911-CFM-134		6-29-11		0950		X	
132 SW-075006-062911-CFM-135		6-29-11		0950		X	
133 SW-075006-062911-CFM-136		6-29-11		0950		X	
134 SW-075006-062911-CFM-137		6-29-11		0950		X	
135 SW-075006-062911-CFM-138		6-29-11		0950		X	
136 SW-075006-062911-CFM-139		6-29-11		0950		X	
137 SW-075006-062911-CFM-140		6-29-11		0950		X	
138 SW-075006-062911-CFM-141		6-29-11		0950		X	
139 SW-075006-062911-CFM-142		6-29-11		0950		X	
140 SW-075006-062911-CFM-143		6-29-11		0950		X	
141 SW-075006-062911-CFM-144		6-29-11		0950		X	
142 SW-075006-062911-CFM-145		6-29-11		0950		X	
143 SW-075006-062911-CFM-146		6-29-11		0950		X	
144 SW-075006-062911-CFM-147		6-29-11		0950		X	
145 SW-075006-062911-CFM-148		6-29-11		0950		X	
146 SW-075006-062911-CFM-149		6-29-11		0950		X	
147 SW-075006-062911-CFM-150		6-29-11		0950		X	
148 SW-075006-062911-CFM-151		6-29-11		0950		X	
149 SW-075006-062911-CFM-152		6-29-11		0950		X	
150 SW-075006-062911-CFM-153		6-29-11		0950		X	
151 SW-075006-062911-CFM-154		6-29-11		0950		X	
152 SW-075006-062911-CFM-155		6-29-11		0950		X	
153 SW-075006-062911-CFM-156		6-29-11		0950		X	
154 SW-075006-062911-CFM-157		6-29-11		0950		X	
155 SW-075006-062911-CFM-158		6-29-11		0950		X	
156 SW-075006-062911-CFM-159		6-29-11		0950		X	
157 SW-075006-062911-CFM-160		6-29-11		0950		X	
158 SW-075006-062911-CFM-161		6-29-11		0950		X	
159 SW-075006-062911-CFM-162		6-29-11		0950		X	
160 SW-075006-062911-CFM-163							



Accutest Laboratories Sample Receipt Summary

Page 1 of 4

Accutest Job Number: T80117 Client: CONOCO PHILLIPS Project: WINGATE FRATIONATING PLANT
Date / Time Received: 6/30/2011 10:00 Delivery Method: FedEx Airbill #'s: 486899909094
No. Coolers: Therm ID: Temp Adjustment Factor:
Cooler Temps (Initial/Adjusted):

<u>Cooler Security</u>		<u>Y or N</u>			<u>Y or N</u>
1. Custody Seals Present:	☒	☐	3. COC Present:	☒	☐
2. Custody Seals Intact:	☒	☐	4. Smp'l Dates/Time OK	☒	☐

<u>Cooler Temperature</u>	<u>Y or N</u>
1. Temp criteria achieved:	☒ ☐
2. Cooler temp verification:	
3. Cooler media:	

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>	<u>WTB</u>	<u>STB</u>
1. Trip Blank present / cooler:	☒	☐	☐		☒	☐
2. Trip Blank listed on COC:	☒	☐	☐			
3. Samples preserved properly:	☒	☐	☐			
4. VOCs headspace free:	☒	☐	☐			

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	☒	☐	
2. Container labeling complete:	☒	☐	
3. Sample container label / COC agree:	☒	☐	

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	☒	☐	
2. All containers accounted for:	☒	☐	
3. Condition of sample:			Intact

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	☒	☐		
2. Bottles received for unspecified tests	☐	☒		
3. Sufficient volume recvd for analysis:	☒	☐		
4. Compositing instructions clear:	☐	☐		☒
5. Filtering instructions clear:	☐	☐		☒

Comments 1) Only one vial is labeled for TB

Accutest Laboratories
V: 713.271.4700

10165 Harwin Drive
F: 713.271.4770

Houston, TX 77036
www.accutest.com

T80117: Chain of Custody
Page 3 of 6



Problem Resolution

Page 2 of 4

Accutest Job Number: T80117

CSR: ERICA CARDENAS

Response Date: 7/5/2011

Response: LOGGED IN ALL VIALS.

31



T80117: Chain of Custody

Page 4 of 6

Job #: T80117

Date / Time Received: 6/30/2011 10:00:00 AM

Initials: VG

Client: CONOCO PHILLIPS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T80117-1	1000 ml	1	3D	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-1	500 ml	2	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-1	LAG	3	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-1	LAG	4	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-1	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-1	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-1	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-2	1000 ml	1	3D	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-2	500 ml	2	3D	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-2	500 ml	3	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-2	250 ml	4	3D	H2SO4	pH < 2	110	2.3	-0.5	1.8
1	T80117-2	LAG	5	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-2	LAG	6	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-2	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-2	40 ml	8	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-2	40 ml	9	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-3	1000 ml	1	3D	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-3	500 ml	2	3D	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-3	500 ml	3	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-3	250 ml	4	3D	H2SO4	pH < 2	110	2.3	-0.5	1.8
1	T80117-3	LAG	5	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-3	LAG	6	1FF	N/P	Note #2 - Preservative check not applicable.	110	2.3	-0.5	1.8
1	T80117-3	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8

T80117: Chain of Custody

Page 5 of 6

Sample Receipt Log

Page 4 of 4

Job #: T80117

Date / Time Received: 6/30/2011 10:00:00 AM

Initials: VG

Client: CONOCO PHILLIPS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres.	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T80117-3	40 ml	8	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-3	40 ml	9	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-4	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8
1	T80117-4	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	2.3	-0.5	1.8

T80117: Chain of Custody
Page 6 of 6



Gulf Coast

ACCUTEST®

LABORATORIES

4

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1091-MB	X0074026.D	1	07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.27	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.34	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.28	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.33	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.87	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.27	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.21	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.25	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1091-MB	X0074026.D	1	07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.27	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.33	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.41	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	90% 79-122%
17060-07-0	1,2-Dichloroethane-D4	84% 75-121%

Method Blank Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1091-MB	X0074026.D	1	07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	90% 87-119%
460-00-4	4-Bromofluorobenzene	87% 80-133%

Method Blank Summary

Page 1 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-MB	M0036313.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.27	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.34	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.28	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.33	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.87	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.27	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.21	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.25	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-MB	M0036313.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.27	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.33	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.41	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	108% 79-122%
17060-07-0	1,2-Dichloroethane-D4	102% 75-121%

Method Blank Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-MB	M0036313.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	104% 87-119%
460-00-4	4-Bromofluorobenzene	115% 80-133%

Blank Spike Summary

Page 1 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1091-BS	X0074024.D 1		07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	110	88	62-124
71-43-2	Benzene	25	23.8	95	76-118
108-86-1	Bromobenzene	25	24.0	96	72-110
74-97-5	Bromochloromethane	25	24.5	98	69-110
75-27-4	Bromodichloromethane	25	24.3	97	68-107
75-25-2	Bromoform	25	26.0	104 ^a	64-103
104-51-8	n-Butylbenzene	25	23.7	95	74-114
135-98-8	sec-Butylbenzene	25	24.7	99	76-118
98-06-6	tert-Butylbenzene	25	27.3	109	72-116
108-90-7	Chlorobenzene	25	24.5	98	74-111
75-00-3	Chloroethane	25	23.2	93	75-135
67-66-3	Chloroform	25	24.1	96	75-117
95-49-8	o-Chlorotoluene	25	23.5	94	74-113
106-43-4	p-Chlorotoluene	25	24.0	96	72-114
75-15-0	Carbon disulfide	25	22.8	91	57-126
56-23-5	Carbon tetrachloride	25	27.9	112	75-125
75-34-3	1,1-Dichloroethane	25	23.8	95	76-121
75-35-4	1,1-Dichloroethylene	25	29.0	116	71-128
563-58-6	1,1-Dichloropropene	25	26.4	106	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	22.5	90	55-121
106-93-4	1,2-Dibromoethane	25	23.9	96	69-106
107-06-2	1,2-Dichloroethane	25	23.2	93	70-111
78-87-5	1,2-Dichloropropane	25	23.9	96	71-113
142-28-9	1,3-Dichloropropane	25	23.1	92	69-106
594-20-7	2,2-Dichloropropane	25	25.2	101	68-130
124-48-1	Dibromochloromethane	25	25.2	101	69-104
75-71-8	Dichlorodifluoromethane	25	30.4	122 ^a	28-120
156-59-2	cis-1,2-Dichloroethylene	25	24.5	98	68-113
10061-01-5	cis-1,3-Dichloropropene	25	25.4	102	71-111
541-73-1	m-Dichlorobenzene	25	24.2	97	74-110
95-50-1	o-Dichlorobenzene	25	24.1	96	72-108
106-46-7	p-Dichlorobenzene	25	24.1	96	74-110
156-60-5	trans-1,2-Dichloroethylene	25	24.7	99	70-125
10061-02-6	trans-1,3-Dichloropropene	25	27.0	108	75-111
100-41-4	Ethylbenzene	25	23.9	96	75-112
591-78-6	2-Hexanone	125	116	93	60-113

Blank Spike Summary

Page 2 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1091-BS	X0074024.D	1	07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	26.2	105	72-123
98-82-8	Isopropylbenzene	25	28.0	112	75-123
99-87-6	p-Isopropyltoluene	25	25.3	101	76-116
108-10-1	4-Methyl-2-pentanone	125	120	96	63-115
74-83-9	Methyl bromide	25	27.8	111	59-132
74-87-3	Methyl chloride	25	23.0	92	56-150
74-95-3	Methylene bromide	25	23.8	95	68-114
75-09-2	Methylene chloride	25	22.2	89	70-113
78-93-3	Methyl ethyl ketone	125	119	95	62-117
1634-04-4	Methyl Tert Butyl Ether	25	22.0	88	65-113
91-20-3	Naphthalene	25	20.8	83	53-127
103-65-1	n-Propylbenzene	25	24.4	98	74-115
100-42-5	Styrene	25	24.6	98	76-110
630-20-6	1,1,1,2-Tetrachloroethane	25	24.6	98	72-108
71-55-6	1,1,1-Trichloroethane	25	23.3	93	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	22.8	91	67-110
79-00-5	1,1,2-Trichloroethane	25	23.5	94	69-107
87-61-6	1,2,3-Trichlorobenzene	25	22.3	89	51-128
96-18-4	1,2,3-Trichloropropane	25	23.0	92	55-116
120-82-1	1,2,4-Trichlorobenzene	25	23.2	93	63-114
95-63-6	1,2,4-Trimethylbenzene	25	23.1	92	73-111
108-67-8	1,3,5-Trimethylbenzene	25	23.3	93	74-115
127-18-4	Tetrachloroethylene	25	25.3	101	77-120
108-88-3	Toluene	25	24.1	96	77-114
79-01-6	Trichloroethylene	25	24.9	100	74-117
75-69-4	Trichlorofluoromethane	25	31.6	126	64-132
75-01-4	Vinyl chloride	25	22.3	89	64-121
1330-20-7	Xylene (total)	75	71.7	96	75-111
	m,p-Xylene	50	47.7	95	75-112
95-47-6	o-Xylene	25	24.0	96	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	92%	79-122%
17060-07-0	1,2-Dichloroethane-D4	84%	75-121%

Blank Spike Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1091-BS	X0074024.D	1	07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	90%	87-119%
460-00-4	4-Bromofluorobenzene	87%	80-133%

(a) Outside control limits biased high. Only ND results for this compound are reported for all the samples associated with this BS.

Blank Spike Summary

Page 1 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-BS	M0036311.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	116	93	62-124
71-43-2	Benzene	25	22.4	90	76-118
108-86-1	Bromobenzene	25	20.4	82	72-110
74-97-5	Bromochloromethane	25	20.2	81	69-110
75-27-4	Bromodichloromethane	25	21.1	84	68-107
75-25-2	Bromoförm	25	21.0	84	64-103
104-51-8	n-Butylbenzene	25	19.9	80	74-114
135-98-8	sec-Butylbenzene	25	20.8	83	76-118
98-06-6	tert-Butylbenzene	25	20.9	84	72-116
108-90-7	Chlorobenzene	25	20.7	83	74-111
75-00-3	Chloroethane	25	26.6	106	75-135
67-66-3	Chloroform	25	20.9	84	75-117
95-49-8	o-Chlorotoluene	25	19.8	79	74-113
106-43-4	p-Chlorotoluene	25	21.2	85	72-114
75-15-0	Carbon disulfide	25	21.2	85	57-126
56-23-5	Carbon tetrachloride	25	24.3	97	75-125
75-34-3	1,1-Dichloroethane	25	21.7	87	76-121
75-35-4	1,1-Dichloroethylene	25	25.0	100	71-128
563-58-6	1,1-Dichloropropene	25	21.0	84	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	25.6	102	55-121
106-93-4	1,2-Dibromoethane	25	21.2	85	69-106
107-06-2	1,2-Dichloroethane	25	22.4	90	70-111
78-87-5	1,2-Dichloropropane	25	20.6	82	71-113
142-28-9	1,3-Dichloropropane	25	21.3	85	69-106
594-20-7	2,2-Dichloropropane	25	16.2	69	68-130
124-48-1	Dibromochloromethane	25	20.4	82	69-104
75-71-8	Dichlorodifluoromethane	25	34.3	137*	28-120
156-59-2	cis-1,2-Dichloroethylene	25	20.5	82	68-113
10061-01-5	cis-1,3-Dichloropropene	25	18.9	76	71-111
541-73-1	m-Dichlorobenzene	25	19.7	79	74-110
95-50-1	o-Dichlorobenzene	25	20.1	80	72-108
106-46-7	p-Dichlorobenzene	25	22.4	90	74-110
156-60-5	trans-1,2-Dichloroethylene	25	22.3	89	70-125
10061-02-6	trans-1,3-Dichloropropene	25	20.6	82	75-111
100-41-4	Ethylbenzene	25	20.6	82	75-112
591-78-6	2-Hexanone	125	105	84	60-113

Blank Spike Summary

Page 2 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-BS	M0036311.D1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	21.0	84	72-123
98-82-8	Isopropylbenzene	25	23.9	96	75-123
99-87-6	p-Isopropyltoluene	25	21.2	85	76-116
108-10-1	4-Methyl-2-pentanone	125	98.6	79	63-115
74-83-9	Methyl bromide	25	25.7	103	59-132
74-87-3	Methyl chloride	25	26.4	106	56-150
74-95-3	Methylene bromide	25	21.7	87	68-114
75-09-2	Methylene chloride	25	21.6	86	70-113
78-93-3	Methyl ethyl ketone	125	113	90	62-117
1634-04-4	Methyl Tert Butyl Ether	25	19.5	78	65-113
91-20-3	Naphthalene	25	21.8	87	53-127
103-65-1	n-Propylbenzene	25	20.2	81	74-115
100-42-5	Styrene	25	20.6	82	76-110
630-20-6	1,1,1,2-Tetrachloroethane	25	21.0	84	72-108
71-55-6	1,1,1-Trichloroethane	25	22.2	89	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	22.1	88	67-110
79-00-5	1,1,2-Trichloroethane	25	21.6	86	69-107
87-61-6	1,2,3-Trichlorobenzene	25	22.8	91	51-128
96-18-4	1,2,3-Trichloropropane	25	22.2	89	55-116
120-82-1	1,2,4-Trichlorobenzene	25	20.1	80	63-114
95-63-6	1,2,4-Trimethylbenzene	25	19.6	78	73-111
108-67-8	1,3,5-Trimethylbenzene	25	18.8	75	74-115
127-18-4	Tetrachloroethylene	25	26.2	105	77-120
108-88-3	Toluene	25	20.5	82	77-114
79-01-6	Trichloroethylene	25	21.2	85	74-117
75-69-4	Trichlorofluoromethane	25	28.2	113	64-132
75-01-4	Vinyl chloride	25	25.7	103	64-121
1330-20-7	Xylene (total)	75	61.9	83	75-111
	m,p-Xylene	50	41.0	82	75-112
95-47-6	o-Xylene	25	20.9	84	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	79-122%
17060-07-0	1,2-Dichloroethane-D4	104%	75-121%

Blank Spike Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1484-BS	M0036311.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	105%	87-119%
460-00-4	4-Bromofluorobenzene	111%	80-133%

(a) Outside control limits biased high. Only ND results for this compound are reported for all the samples associated with this BS.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80117-1MS	X0074028.D	1	07/06/11	JL	n/a	n/a	VX1091
T80117-1MSD	X0074029.D	1	07/06/11	JL	n/a	n/a	VX1091
T80117-1	X0074027.D	1	07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Compound	T80117-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	125	105	84	99.5	80	5	62-124/21
71-43-2	Benzene	ND	25	23.4	94	22.0	88	6	76-118/16
108-86-1	Bromobenzene	ND	25	24.0	96	22.5	90	6	72-110/12
74-97-5	Bromochloromethane	ND	25	23.9	96	22.3	89	7	69-110/12
75-27-4	Bromodichloromethane	ND	25	23.9	96	22.1	88	8	68-107/12
75-25-2	Bromoform	ND	25	25.1	100	23.5	94	7	64-103/14
104-51-8	n-Butylbenzene	ND	25	22.3	89	21.3	85	5	74-114/12
135-98-8	sec-Butylbenzene	ND	25	24.3	97	22.8	91	6	76-118/12
98-06-6	tert-Butylbenzene	ND	25	27.1	108	25.2	101	7	72-116/14
108-90-7	Chlorobenzene	ND	25	24.6	98	22.8	91	8	74-111/11
75-00-3	Chloroethane	ND	25	22.8	91	20.7	83	10	75-135/15
67-66-3	Chloroform	ND	25	23.4	94	22.0	88	6	75-117/12
95-49-8	o-Chlorotoluene	ND	25	23.5	94	22.2	89	6	74-113/12
106-43-4	p-Chlorotoluene	ND	25	24.0	96	22.3	89	7	72-114/12
75-15-0	Carbon disulfide	ND	25	22.3	89	21.6	86	3	57-126/13
56-23-5	Carbon tetrachloride	ND	25	26.9	108	25.5	102	5	75-125/12
75-34-3	1,1-Dichloroethane	ND	25	23.5	94	22.0	88	7	76-121/13
75-35-4	1,1-Dichloroethylene	ND	25	28.9	116	26.2	105	10	71-128/19
563-58-6	1,1-Dichloropropene	ND	25	25.8	103	23.9	96	8	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	20.8	83	19.9	80	4	55-121/33
106-93-4	1,2-Dibromoethane	ND	25	22.4	90	21.5	86	4	69-106/13
107-06-2	1,2-Dichloroethane	ND	25	22.4	90	21.0	84	6	70-111/14
78-87-5	1,2-Dichloropropane	ND	25	23.5	94	22.2	89	6	71-113/12
142-28-9	1,3-Dichloropropane	ND	25	22.2	89	20.7	83	7	69-106/12
594-20-7	2,2-Dichloropropane	ND	25	15.9	64*	15.1	60*	5	68-130/14
124-48-1	Dibromochloromethane	ND	25	24.7	99	23.2	93	6	69-104/12
75-71-8	Dichlorodifluoromethane	ND	25	27.4	110	24.9	100	10	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND	25	23.9	96	22.2	89	7	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	25	22.9	92	21.7	87	5	71-111/12
541-73-1	m-Dichlorobenzene	ND	25	23.9	96	22.6	90	6	74-110/12
95-50-1	o-Dichlorobenzene	ND	25	23.9	96	22.3	89	7	72-108/12
106-46-7	p-Dichlorobenzene	ND	25	23.8	95	22.3	89	7	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND	25	24.0	96	22.4	90	7	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND	25	24.4	98	23.0	92	6	75-111/12
100-41-4	Ethylbenzene	ND	25	23.7	95	22.0	88	7	75-112/12
591-78-6	2-Hexanone	ND	125	108	86	104	83	4	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80117-1MS	X0074028.D	1	07/06/11	JL	n/a	n/a	VX1091
T80117-1MSD	X0074029.D	1	07/06/11	JL	n/a	n/a	VX1091
T80117-1	X0074027.D	1	07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Compound	T80117-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND	25	24.7	99	24.1	96	2	72-123/17
98-82-8	Isopropylbenzene	ND	25	28.0	112	26.3	105	6	75-123/12
99-87-6	p-Isopropyltoluene	ND	25	24.4	98	23.0	92	6	76-116/12
108-10-1	4-Methyl-2-pentanone	ND	125	110	88	106	85	4	63-115/21
74-83-9	Methyl bromide	ND	25	25.9	104	24.5	98	6	59-132/15
74-87-3	Methyl chloride	ND	25	22.5	90	20.9	84	7	56-150/17
74-95-3	Methylene bromide	ND	25	23.0	92	21.4	86	7	68-114/13
75-09-2	Methylene chloride	ND	25	20.9	84	19.3	77	8	70-113/13
78-93-3	Methyl ethyl ketone	ND	125	105	84	101	81	4	62-117/21
1634-04-4	Methyl Tert Butyl Ether	ND	25	20.6	82	19.7	79	4	65-113/13
91-20-3	Naphthalene	ND	25	19.5	78	19.1	76	2	53-127/34
103-65-1	n-Propylbenzene	ND	25	24.2	97	22.6	90	7	74-115/12
100-42-5	Styrene	ND	25	23.6	94	21.9	88	7	76-110/11
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	24.8	99	23.2	93	7	72-108/11
71-55-6	1,1,1-Trichloroethane	ND	25	22.3	89	21.2	85	5	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	21.7	87	20.8	83	4	67-110/20
79-00-5	1,1,2-Trichloroethane	ND	25	22.8	91	21.8	87	4	69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND	25	21.3	85	20.5	82	4	51-128/31
96-18-4	1,2,3-Trichloropropane	ND	25	22.2	89	21.0	84	6	55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND	25	22.1	88	21.6	86	2	63-114/21
95-63-6	1,2,4-Trimethylbenzene	ND	25	22.8	91	21.2	85	7	73-111/13
108-67-8	1,3,5-Trimethylbenzene	ND	25	23.1	92	21.6	86	7	74-115/12
127-18-4	Tetrachloroethylene	ND	25	24.4	98	23.1	92	5	77-120/13
108-88-3	Toluene	ND	25	23.9	96	22.2	89	7	77-114/12
79-01-6	Trichloroethylene	ND	25	24.1	96	22.5	90	7	74-117/12
75-69-4	Trichlorofluoromethane	ND	25	29.6	118	27.7	111	7	64-132/18
75-01-4	Vinyl chloride	ND	25	21.6	86	19.9	80	8	64-121/19
1330-20-7	Xylene (total)	ND	75	70.8	94	65.8	88	7	75-111/12
	m,p-Xylene	ND	50	47.2	94	43.7	87	8	75-112/12
95-47-6	o-Xylene	ND	25	23.6	94	22.2	89	6	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T80117-1	Limits
1868-53-7	Dibromofluoromethane	90%	90%	92%	79-122%
17060-07-0	1,2-Dichloroethane-D4	82%	83%	86%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80117-1MS	X0074028.D	1	07/06/11	JL	n/a	n/a	VX1091
T80117-1MSD	X0074029.D	1	07/06/11	JL	n/a	n/a	VX1091
T80117-1	X0074027.D	1	07/06/11	JL	n/a	n/a	VX1091

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-1

CAS No.	Surrogate Recoveries	MS	MSD	T80117-1	Limits
2037-26-5	Toluene-D8	90%	89%	89%	87-119%
460-00-4	4-Bromofluorobenzene	86%	86%	88%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80152-1MS	M0036316.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1MSD	M0036317.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1	M0036315.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Compound	T80152-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	131	105	128	102	2	62-124/21
71-43-2	Benzene	ND		25	25.9	104	24.3	97	6	76-118/16
108-86-1	Bromobenzene	ND		25	22.1	88	22.3	89	1	72-110/12
74-97-5	Bromochloromethane	ND		25	24.7	99	23.2	93	6	69-110/12
75-27-4	Bromodichloromethane	ND		25	24.0	96	23.0	92	4	68-107/12
75-25-2	Bromoform	ND		25	23.8	95	23.4	94	2	64-103/14
104-51-8	n-Butylbenzene	ND		25	21.9	88	21.3	85	3	74-114/12
135-98-8	sec-Butylbenzene	ND		25	22.3	89	22.7	91	2	76-118/12
98-06-6	tert-Butylbenzene	ND		25	22.9	92	22.8	91	0	72-116/14
108-90-7	Chlorobenzene	ND		25	25.2	101	24.6	98	2	74-111/11
75-00-3	Chloroethane	ND		25	28.6	114	26.2	105	9	75-135/15
67-66-3	Chloroform	ND		25	24.8	99	25.1	100	1	75-117/12
95-49-8	o-Chlorotoluene	ND		25	21.6	86	22.1	88	2	74-113/12
106-43-4	p-Chlorotoluene	ND		25	23.0	92	22.7	91	1	72-114/12
75-15-0	Carbon disulfide	ND		25	24.3	97	23.9	96	2	57-126/13
56-23-5	Carbon tetrachloride	ND		25	27.8	111	25.3	101	9	75-125/12
75-34-3	1,1-Dichloroethane	ND		25	25.1	100	25.2	101	0	76-121/13
75-35-4	1,1-Dichloroethylene	ND		25	29.0	116	28.7	115	1	71-128/19
563-58-6	1,1-Dichloropropene	ND		25	24.9	100	23.6	94	5	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	29.0	116	26.1	104	11	55-121/33
106-93-4	1,2-Dibromoethane	ND		25	23.9	96	23.5	94	2	69-106/13
107-06-2	1,2-Dichloroethane	ND		25	26.1	104	25.1	100	4	70-111/14
78-87-5	1,2-Dichloropropane	ND		25	23.6	94	22.2	89	6	71-113/12
142-28-9	1,3-Dichloropropane	ND		25	23.7	95	23.4	94	1	69-106/12
594-20-7	2,2-Dichloropropane	ND		25	17.6	70	17.6	70	0	68-130/14
124-48-1	Dibromochloromethane	ND		25	22.9	92	22.2	89	3	69-104/12
75-71-8	Dichlorodifluoromethane	ND		25	35.7	143*	34.4	138*	4	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND		25	23.4	94	22.7	91	3	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND		25	20.8	83	20.3	81	2	71-111/12
541-73-1	m-Dichlorobenzene	ND		25	21.3	85	22.8	91	7	74-110/12
95-50-1	o-Dichlorobenzene	ND		25	22.5	90	22.6	90	0	72-108/12
106-46-7	p-Dichlorobenzene	ND		25	25.1	100	24.3	97	3	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND		25	25.8	103	24.8	99	4	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND		25	23.8	95	23.1	92	3	75-111/12
100-41-4	Ethylbenzene	ND		25	23.6	94	22.4	90	5	75-112/12
591-78-6	2-Hexanone	ND		125	117	94	119	95	2	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80152-1MS	M0036316.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1MSD	M0036317.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1	M0036315.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Compound	T80152-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND	25	22.8	91	22.6	90	1	72-123/17
98-82-8	Isopropylbenzene	ND	25	26.3	105	25.9	104	2	75-123/12
99-87-6	p-Isopropyltoluene	ND	25	23.0	92	22.7	91	1	76-116/12
108-10-1	4-Methyl-2-pentanone	ND	125	113	90	113	90	0	63-115/21
74-83-9	Methyl bromide	ND	25	26.7	107	25.4	102	5	59-132/15
74-87-3	Methyl chloride	ND	25	28.4	114	28.9	116	2	56-150/17
74-95-3	Methylene bromide	ND	25	24.6	98	25.7	103	4	68-114/13
75-09-2	Methylene chloride	ND	25	23.7	95	22.3	89	6	70-113/13
78-93-3	Methyl ethyl ketone	ND	125	123	98	123	98	0	62-117/21
1634-04-4	Methyl Tert Butyl Ether	ND	25	21.9	88	21.7	87	1	65-113/13
91-20-3	Naphthalene	ND	25	21.4	86	22.7	91	6	53-127/34
103-65-1	n-Propylbenzene	ND	25	22.4	90	22.5	90	0	74-115/12
100-42-5	Styrene	ND	25	22.5	90	22.5	90	0	76-110/11
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	23.0	92	22.7	91	1	72-108/11
71-55-6	1,1,1-Trichloroethane	ND	25	26.2	105	25.4	102	3	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	24.1	96	24.0	96	0	67-110/20
79-00-5	1,1,2-Trichloroethane	ND	25	24.6	98	25.1	100	2	69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND	25	22.8	91	24.7	99	8	51-128/31
96-18-4	1,2,3-Trichloropropane	ND	25	24.4	98	25.3	101	4	55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND	25	21.7	87	21.7	87	0	63-114/21
95-63-6	1,2,4-Trimethylbenzene	ND	25	21.6	86	22.1	88	2	73-111/13
108-67-8	1,3,5-Trimethylbenzene	ND	25	21.5	86	22.1	88	3	74-115/12
127-18-4	Tetrachloroethylene	ND	25	26.9	108	27.3	109	1	77-120/13
108-88-3	Toluene	ND	25	23.5	94	23.1	92	2	77-114/12
79-01-6	Trichloroethylene	19.6	25	42.6	92	43.7	96	3	74-117/12
75-69-4	Trichlorofluoromethane	ND	25	29.5	118	28.3	113	4	64-132/18
75-01-4	Vinyl chloride	ND	25	26.9	108	24.2	97	11	64-121/19
1330-20-7	Xylene (total)	ND	75	70.6	94	70.3	94	0	75-111/12
	m,p-Xylene	ND	50	46.7	93	46.6	93	0	75-112/12
95-47-6	o-Xylene	ND	25	23.9	96	23.7	95	1	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T80152-1	Limits
1868-53-7	Dibromofluoromethane	107%	106%	107%	79-122%
17060-07-0	1,2-Dichloroethane-D4	103%	103%	107%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80152-1MS	M0036316.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1MSD	M0036317.D 1		07/10/11	JL	n/a	n/a	VM1484
T80152-1	M0036315.D 1		07/10/11	JL	n/a	n/a	VM1484

The QC reported here applies to the following samples:

Method: SW846 8260B

T80117-2, T80117-3, T80117-4

CAS No.	Surrogate Recoveries	MS	MSD	T80152-1	Limits
2037-26-5	Toluene-D8	106%	105%	104%	87-119%
460-00-4	4-Bromofluorobenzene	108%	110%	119%	80-133%



Gulf Coast

ACCUTEST

LABORATORIES

GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-MB	P18996.D	1	07/08/11	SC	07/03/11	OP19154	EP909

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	5.0	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	15	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.4	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.83	ug/l	
	3&4-Methylphenol	ND	5.0	1.6	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	6.7	ug/l	
87-86-5	Pentachlorophenol	ND	25	13	ug/l	
108-95-2	Phenol	ND	5.0	0.75	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.1	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.6	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
62-53-3	Aniline	ND	5.0	4.6	ug/l	
120-12-7	Anthracene	ND	5.0	1.1	ug/l	
92-87-5	Benzidine	ND	25	6.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.87	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.7	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.4	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.6	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.3	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.4	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	4.3	ug/l	
86-74-8	Carbazole	ND	5.0	1.5	ug/l	
218-01-9	Chrysene	ND	5.0	0.98	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.3	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	1.3	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.3	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-MB	P18996.D	1	07/08/11	SC	07/03/11	OP19154	EP909

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.3	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.4	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.3	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	1.4	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.3	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	3.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.3	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.8	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.97	ug/l	
86-73-7	Fluorene	ND	5.0	1.3	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	5.2	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.8	ug/l	
78-59-1	Isophorone	ND	5.0	1.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.4	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	3.3	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	2.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.7	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.97	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.4	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.7	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.97	ug/l	
129-00-0	Pyrene	ND	5.0	1.7	ug/l	
110-86-1	Pyridine	ND	5.0	0.99	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	

Method Blank Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-MB	P18996.D	1	07/08/11	SC	07/03/11	OP19154	EP909

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	31% 10-66%
4165-62-2	Phenol-d5	23% 10-53%
118-79-6	2,4,6-Tribromophenol	86% 32-128%
4165-60-0	Nitrobenzene-d5	63% 29-115%
321-60-8	2-Fluorobiphenyl	71% 34-113%
1718-51-0	Terphenyl-d14	96% 12-145%

Blank Spike Summary

Page 1 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-BS	J160565.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	24.1	48	10-68
95-57-8	2-Chlorophenol	50	33.1	66	39-93
59-50-7	4-Chloro-3-methyl phenol	50	34.9	70	43-109
120-83-2	2,4-Dichlorophenol	50	34.0	68	42-106
105-67-9	2,4-Dimethylphenol	50	28.4	57	27-87
51-28-5	2,4-Dinitrophenol	50	33.3	67	43-107
534-52-1	4,6-Dinitro-o-cresol	50	46.4	93	47-112
95-48-7	2-Methylphenol	50	32.0	64	25-84
	3&4-Methylphenol	100	53.2	53	25-77
88-75-5	2-Nitrophenol	50	36.8	74	38-96
100-02-7	4-Nitrophenol	50	13.1	26	13-70
87-86-5	Pentachlorophenol	50	34.0	68	46-153
108-95-2	Phenol	50	15.0	30	10-53
95-95-4	2,4,5-Trichlorophenol	50	37.0	74	40-101
88-06-2	2,4,6-Trichlorophenol	50	36.0	72	41-102
83-32-9	Acenaphthene	50	37.1	74	41-110
208-96-8	Acenaphthylene	50	39.5	79	49-113
62-53-3	Aniline	50	27.7	55	24-132
120-12-7	Anthracene	50	43.5	87	59-105
56-55-3	Benzo(a)anthracene	50	47.5	95	64-112
50-32-8	Benzo(a)pyrene	50	41.8	84	62-116
205-99-2	Benzo(b)fluoranthene	50	42.4	85	62-114
191-24-2	Benzo(g,h,i)perylene	50	52.2	104	55-124
207-08-9	Benzo(k)fluoranthene	50	45.9	92	62-119
101-55-3	4-Bromophenyl phenyl ether	50	39.0	78	56-99
85-68-7	Butyl benzyl phthalate	50	55.9	112	52-125
100-51-6	Benzyl Alcohol	50	32.1	64	28-83
91-58-7	2-Chloronaphthalene	50	28.7	57	42-97
106-47-8	4-Chloroaniline	50	26.9	54	37-128
86-74-8	Carbazole	50	40.8	82	59-142
218-01-9	Chrysene	50	49.8	100	67-112
111-91-1	bis(2-Chloroethoxy)methane	50	37.0	74	38-96
111-44-4	bis(2-Chloroethyl)ether	50	31.3	63	37-91
108-60-1	bis(2-Chloroisopropyl)ether	50	29.2	58	36-102
7005-72-3	4-Chlorophenyl phenyl ether	50	36.5	73	48-101
95-50-1	1,2-Dichlorobenzene	50	29.7	59	33-86

Blank Spike Summary

Page 2 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-BS	J160565.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
122-66-7	1,2-Diphenylhydrazine	50	41.5	83	39-118
541-73-1	1,3-Dichlorobenzene	50	28.7	57	21-88
106-46-7	1,4-Dichlorobenzene	50	29.5	59	31-86
121-14-2	2,4-Dinitrotoluene	50	39.7	79	55-112
606-20-2	2,6-Dinitrotoluene	50	41.0	82	57-105
91-94-1	3,3'-Dichlorobenzidine	50	26.7	53	50-142
53-70-3	Dibenzo(a,h)anthracene	50	45.3	91	55-123
132-64-9	Dibenzofuran	50	38.1	76	45-99
84-74-2	Di-n-butyl phthalate	50	45.5	91	64-114
117-84-0	Di-n-octyl phthalate	50	47.7	95	55-118
84-66-2	Diethyl phthalate	50	42.1	84	52-113
131-11-3	Dimethyl phthalate	50	41.4	83	38-112
117-81-7	bis(2-Ethylhexyl)phthalate	50	55.8	112	56-131
206-44-0	Fluoranthene	50	43.1	86	62-116
86-73-7	Fluorene	50	38.5	77	47-99
118-74-1	Hexachlorobenzene	50	35.2	70	62-102
87-68-3	Hexachlorobutadiene	50	24.4	49	37-91
77-47-4	Hexachlorocyclopentadiene	50	22.5	45	23-102
67-72-1	Hexachloroethane	50	27.4	55	33-86
193-39-5	Indeno(1,2,3-cd)pyrene	50	44.2	88	52-126
78-59-1	Isophorone	50	36.9	74	42-105
90-12-0	1-Methylnaphthalene	50	34.2	68	35-89
91-57-6	2-Methylnaphthalene	50	33.0	66	36-91
88-74-4	2-Nitroaniline	50	29.3	59	49-109
99-09-2	3-Nitroaniline	50	33.5	67	46-139
100-01-6	4-Nitroaniline	50	39.2	78	73-174
91-20-3	Naphthalene	50	32.1	64	37-89
98-95-3	Nitrobenzene	50	31.7	63	42-97
62-75-9	n-Nitrosodimethylamine	50	15.5	31	16-63
621-64-7	N-Nitroso-di-n-propylamine	50	36.5	73	42-102
86-30-6	N-Nitrosodiphenylamine	50	38.6	77	64-119
85-01-8	Phenanthrene	50	44.9	90	59-103
129-00-0	Pyrene	50	51.9	104	58-110
110-86-1	Pyridine	50	15.6	31	10-63
120-82-1	1,2,4-Trichlorobenzene	50	27.3	55	37-88

Blank Spike Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-BS	J160565.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	10-66%
4165-62-2	Phenol-d5	29%	10-53%
118-79-6	2,4,6-Tribromophenol	74%	32-128%
4165-60-0	Nitrobenzene-d5	66%	29-115%
321-60-8	2-Fluorobiphenyl	75%	34-113%
1718-51-0	Terphenyl-d14	94%	12-145%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80117
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-MS	J160568.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203
OP19154-MSD	J160569.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203
T79318-30	J160567.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Compound	T79318-30 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	11 U	53.8	21.2	39	23.1	43	9	10-68/27
95-57-8	2-Chlorophenol	5.3 U	53.8	24.1	45	23.4	44	3	39-93/28
59-50-7	4-Chloro-3-methyl phenol	5.3 U	53.8	23.3	43	22.0	41*	6	43-109/28
120-83-2	2,4-Dichlorophenol	5.3 U	53.8	23.1	43	22.2	41*	4	42-106/25
105-67-9	2,4-Dimethylphenol	5.3 U	53.8	19.7	37	19.2	36	3	27-87/26
51-28-5	2,4-Dinitrophenol	27 U	53.8	22.1	41*	22.0	41*	0	43-107/44
534-52-1	4,6-Dinitro-o-cresol	11 U	53.8	32.7	61	31.8	59	3	47-112/24
95-48-7	2-Methylphenol	5.3 U	53.8	22.2	41	21.7	40	2	25-84/31
	3&4-Methylphenol	5.3 U	108	36.3	34	34.7	32	5	25-77/25
88-75-5	2-Nitrophenol	5.3 U	53.8	26.0	48	25.1	47	4	38-96/26
100-02-7	4-Nitrophenol	27 U	53.8	8.9	17	8.9	17	0	13-70/25
87-86-5	Pentachlorophenol	27 U	53.8	24.9	46	24.4	45*	2	46-153/18
108-95-2	Phenol	5.3 U	53.8	11.0	20	8.2	15	29	10-53/35
95-95-4	2,4,5-Trichlorophenol	5.3 U	53.8	26.2	49	24.8	46	5	40-101/22
88-06-2	2,4,6-Trichlorophenol	5.3 U	53.8	25.5	47	25.2	47	1	41-102/22
83-32-9	Acenaphthene	5.3 U	53.8	26.2	49	25.3	47	3	41-110/21
208-96-8	Acenaphthylene	5.3 U	53.8	28.1	52	27.4	51	3	49-113/23
62-53-3	Aniline	5.3 U	53.8	15.8	29	16.0	30	1	24-132/44
120-12-7	Anthracene	5.3 U	53.8	31.0	58*	29.5	55*	5	59-105/18
56-55-3	Benzo(a)anthracene	5.3 U	53.8	31.6	59*	29.8	55*	6	64-112/20
50-32-8	Benzo(a)pyrene	5.3 U	53.8	30.9	57*	29.6	55*	4	62-116/23
205-99-2	Benzo(b)fluoranthene	5.3 U	53.8	32.5	60*	30.0	56*	8	62-114/22
191-24-2	Benzo(g,h,i)perylene	5.3 U	53.8	36.1	67	34.9	65	3	55-124/36
207-08-9	Benzo(k)fluoranthene	5.3 U	53.8	35.2	65	32.8	61*	7	62-119/30
101-55-3	4-Bromophenyl phenyl ether	5.3 U	53.8	26.3	49*	26.0	48*	1	56-99/20
85-68-7	Butyl benzyl phthalate	5.3 U	53.8	36.3	68	34.1	63	6	52-125/25
100-51-6	Benzyl Alcohol	5.3 U	53.8	21.2	39	20.3	38	4	28-83/32
91-58-7	2-Chloronaphthalene	5.3 U	53.8	20.3	38*	20.2	38*	0	42-97/27
106-47-8	4-Chloroaniline	5.3 U	53.8	17.1	32*	16.2	30*	5	37-128/29
86-74-8	Carbazole	5.3 U	53.8	31.4	58*	27.5	51*	13	59-142/19
218-01-9	Chrysene	5.3 U	53.8	33.9	63*	32.0	60*	6	67-112/19
111-91-1	bis(2-Chloroethoxy)methane	5.3 U	53.8	25.7	48	24.0	45	7	38-96/30
111-44-4	bis(2-Chloroethyl)ether	5.3 U	53.8	23.8	44	22.1	41	7	37-91/33
108-60-1	bis(2-Chloroisopropyl)ether	5.3 U	53.8	22.2	41	20.6	38	7	36-102/32
7005-72-3	4-Chlorophenyl phenyl ether	5.3 U	53.8	25.5	47*	24.1	45*	6	48-101/21
95-50-1	1,2-Dichlorobenzene	5.3 U	53.8	24.4	45	24.5	46	0	33-86/29

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-MS	J160568.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203
OP19154-MSD	J160569.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203
T79318-30	J160567.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Compound	T79318-30 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
122-66-7	1,2-Diphenylhydrazine	5.3 U		53.8	28.4	53	29.4	55	3	30-122/34
541-73-1	1,3-Dichlorobenzene	5.3 U		53.8	23.7	44	23.8	44	0	32-88/32
106-46-7	1,4-Dichlorobenzene	5.3 U		53.8	24.1	45	23.9	44	1	31-86/36
121-14-2	2,4-Dinitrotoluene	5.3 U		53.8	27.5	51*	25.3	47*	8	55-112/23
606-20-2	2,6-Dinitrotoluene	5.3 U		53.8	27.7	52*	26.3	49*	5	57-105/23
91-94-1	3,3'-Dichlorobenzidine	11 U		53.8	20.7	39*	14.9	28*	33*	50-142/21
53-70-3	Dibenzo(a,h)anthracene	5.3 U		53.8	30.3	56	30.4	57	0	55-123/37
132-64-9	Dibenzofuran	5.3 U		53.8	26.8	50	25.7	48	4	45-99/20
84-74-2	Di-n-butyl phthalate	5.3 U		53.8	32.2	60*	29.3	54*	9	64-114/16
117-84-0	Di-n-octyl phthalate	5.3 U		53.8	38.2	71	34.4	64	10	55-118/25
84-66-2	Diethyl phthalate	5.3 U		53.8	28.8	54	26.3	49*	9	52-113/20
131-11-3	Dimethyl phthalate	5.3 U		53.8	27.7	52	26.4	49	5	38-112/19
117-81-7	bis(2-Ethylhexyl)phthalate	5.3 U		53.8	36.2	67	33.7	63	7	56-131/19
206-44-0	Fluoranthene	5.3 U		53.8	33.1	62	28.3	53*	16	62-116/24
86-73-7	Fluorene	5.3 U		53.8	27.1	50	25.3	47	7	47-99/22
118-74-1	Hexachlorobenzene	5.3 U		53.8	24.3	45*	23.9	44*	2	62-102/21
87-68-3	Hexachlorobutadiene	5.3 U		53.8	18.8	35*	18.5	34*	2	37-91/28
77-47-4	Hexachlorocyclopentadiene	11 U		53.8	20.3	38	22.6	42	11	23-102/34
67-72-1	Hexachloroethane	5.3 U		53.8	22.8	42	24.0	45	5	33-86/30
193-39-5	Indeno(1,2,3-cd)pyrene	5.3 U		53.8	30.0	56	29.9	56	0	52-126/30
78-59-1	Isophorone	5.3 U		53.8	25.2	47	23.8	44	6	42-105/28
90-12-0	1-Methylnaphthalene	5.3 U		53.8	25.2	47	23.8	44	6	35-89/25
91-57-6	2-Methylnaphthalene	5.3 U		53.8	24.6	46	23.5	44	5	36-91/29
88-74-4	2-Nitroaniline	5.3 U		53.8	20.2	38*	19.5	36*	4	49-109/22
99-09-2	3-Nitroaniline	5.3 U		53.8	22.8	42*	20.4	38*	11	46-139/23
100-01-6	4-Nitroaniline	5.3 U		53.8	30.3	56*	23.5	44*	25*	73-174/24
91-20-3	Naphthalene	5.3 U		53.8	24.7	46	23.7	44	4	37-89/24
98-95-3	Nitrobenzene	5.3 U		53.8	23.9	44	22.5	42	6	42-97/26
62-75-9	n-Nitrosodimethylamine	5.3 U		53.8	13.0	24	12.3	23	6	16-63/28
621-64-7	N-Nitroso-di-n-propylamine	5.3 U		53.8	24.9	46	23.5	44	6	42-102/27
86-30-6	N-Nitrosodiphenylamine	5.3 U		53.8	26.2	49*	26.7	50*	2	64-119/27
85-01-8	Phenanthrene	5.3 U		53.8	31.6	59	29.4	55*	7	59-103/19
129-00-0	Pyrene	5.3 U		53.8	33.8	63	32.7	61	3	58-110/25
110-86-1	Pyridine	5.3 U		53.8	9.8	18	8.3	15	17	10-63/48
120-82-1	1,2,4-Trichlorobenzene	5.3 U		53.8	21.4	40	21.0	39	2	37-88/23

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80117

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19154-MS	J160568.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203
OP19154-MSD	J160569.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203
T79318-30	J160567.D	1	07/08/11	GJ	07/03/11	OP19154	EJ1203

The QC reported here applies to the following samples:

Method: SW846 8270C

T80117-1, T80117-2, T80117-3

CAS No.	Surrogate Recoveries	MS	MSD	T79318-30	Limits
367-12-4	2-Fluorophenol	29%	30%	25%	10-66%
4165-62-2	Phenol-d5	19%	19%	15%	10-53%
118-79-6	2,4,6-Tribromophenol	46%	47%	35%	32-128%
4165-60-0	Nitrobenzene-d5	42%	40%	37%	29-115%
321-60-8	2-Fluorobiphenyl	48%	48%	40%	34-113%
1718-51-0	Terphenyl-d14	53%	51%	52%	12-145%



Gulf Coast

ACCUTEST

LABORATORIES

Metals Analysis



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T80117
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/01/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12		
Antimony	5.0	1	1		
Arsenic	5.0	1.7	1	-0.35	<5.0
Barium	200	.97	3.4	0.33	<200
Beryllium	5.0	.056	.16		
Boron	100	1.4	7.8		
Cadmium	4.0	.11	.09	0.030	<4.0
Calcium	5000	7.4	25	17.2	<5000
Chromium	10	.23	.27	0.31	<10
Cobalt	50	.15	.22		
Copper	25	1.1	5.9		
Iron	100	1.1	23	2.7	<100
Lead	3.0	1	1.8	0.060	<3.0
Lithium	300	2	2		
Magnesium	5000	7.7	7.9	10.6	<5000
Manganese	15	.054	1.9	0.77	<15
Molybdenum	10	.39	.2		
Nickel	40	.69	1.4		
Potassium	5000	39	45		
Selenium	5.0	1.5	.98	1.2	<5.0
Silver	10	1.2	.24	-0.50	<10
Sodium	5000	9.2	100	-3.5	<5000
Strontium	10	.061	.4		
Thallium	10	.67	1.2		
Tin	20	.69	2.8		
Titanium	20	.29	.3		
Vanadium	50	.3	.3		
Zinc	20	.51	3.5		

Associated samples MP15135: T80117-1F, T80117-2F, T80117-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T80117
 Account: CONOCO - Conoco Phillips
 Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date:

07/01/11

07/01/11

Metal	T79984-1F Original	DUP	RPD	QC Limits	T79984-1F Original MS	Spikelot MPTW4	% Rec	QC Limits	
Aluminum									
Antimony									
Arsenic	4.6	6.7	37.2 (a)	0-20	4.6	406	400	100.4	80-120
Barium	145	146	10.7	0-20	145	549	400	101.0	80-120
Beryllium									
Boron									
Cadmium	0.19	0.21	10.0	0-20	0.19	392	400	98.0	80-120
Calcium	30100	30000	0.3	0-20	30100	82000	50000	103.8	80-120
Chromium	0.67	0.69	2.9	0-20	0.67	427	400	106.6	80-120
Cobalt									
Copper									
Iron	59.1	55.7	5.9	0-20	59.1	52400	50000	104.7	80-120
Lead	1.0	1.4	33.3 (a)	0-20	1.0	399	400	99.5	80-120
Lithium									
Magnesium	14000	14200	1.4	0-20	14000	64900	50000	101.8	80-120
Manganese	525	523	0.4	0-20	525	947	400	105.5	80-120
Molybdenum									
Nickel									
Potassium									
Selenium	0.0	0.0	NC	0-20	0.0	414	400	103.5	80-120
Silver	0.0	0.0	NC	0-20	0.0	399	400	99.8	80-120
Sodium	165000	165000	0.0	0-20	165000	219000	50000	108.0	80-120
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP15135: T80117-1F, T80117-2F, T80117-3F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T80117
 Account: CONOCO - Conoco Phillips
 Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date:

07/01/11

Metal	T79984-1F Original MSD	SpikeLot MPTW4	% Rec	MSD RPD	QC Limit
Aluminum					
Antimony					
Arsenic	4.6	411	400	101.6	20
Barium	145	555	400	102.5	20
Beryllium					
Boron					
Cadmium	0.19	390	400	97.5	20
Calcium	30100	82400	50000	104.6	20
Chromium	0.67	431	400	107.6	20
Cobalt					
Copper					
Iron	59.1	52600	50000	105.1	20
Lead	1.0	401	400	100.0	20
Lithium					
Magnesium	14000	65100	50000	102.2	20
Manganese	525	960	400	108.8	20
Molybdenum					
Nickel					
Potassium					
Selenium	0.0	421	400	105.3	20
Silver	0.0	401	400	100.3	20
Sodium	165000	218000	50000	106.0	20
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP15135: T80117-1F, T80117-2F, T80117-3F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T80117
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

10/7/01/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	396	400	99.0	80-120
Barium	405	400	101.3	80-120
Beryllium				
Boron				
Cadmium	389	400	97.3	80-120
Calcium	52300	50000	104.6	80-120
Chromium	430	400	107.5	80-120
Cobalt				
Copper				
Iron	52700	50000	105.4	80-120
Lead	395	400	98.8	80-120
Lithium				
Magnesium	51300	50000	102.6	80-120
Manganese	433	400	108.3	80-120
Molybdenum				
Nickel				
Potassium				
Selenium	412	400	103.0	80-120
Silver	394	400	98.5	80-120
Sodium	52500	50000	105.0	80-120
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15135: T80117-1F, T80117-2F, T80117-3F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T80117
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15135
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/01/14

Metal	T79984-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	4.56	0.00	100.0(a)	0-10
Barium	145	146	0.4	0-10
Beryllium				
Boron				
Cadmium	0.190	0.00	100.0(a)	0-10
Calcium	30100	30500	1.3	0-10
Chromium	0.670	1.26	88.1(a)	0-10
Cobalt				
Copper				
Iron	59.1	54.8	7.4	0-10
Lead	1.01	0.00	100.0(a)	0-10
Lithium				
Magnesium	14000	14300	2.1	0-10
Manganese	525	535	1.9	0-10
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	165000	167000	1.5	0-10
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15135: T80117-1F, T80117-2F, T80117-3F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

6.1.4

6



Gulf Coast

ACCUTEST

LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80117
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN32859	5.0	3.0	mg/l	2500	2480	99.0%	80-120%
BOD, 5 Day	GP13695/GN32584	2.0	0.0	mg/l	198	217	109.6%	70-136%
BOD, 5 Day	GP13696/GN32584	2.0	0.0	mg/l	198	184	92.9%	70-136%
Chemical Oxygen Demand	GP13805/GN32805	20	0.0	mg/l	60	56.3	93.8%	90-110%
Chemical Oxygen Demand	GP13853/GN32897	20	0.0	mg/l	60	58.3	97.2%	90-110%
Chloride	GP13827/GN32848	0.50	0.0	mg/l	10	9.61	96.1%	90-110%
Nitrogen, Nitrate	GP13725/GN32647	0.50	0.0	mg/l	10	9.01	90.1%	90-110%
Nitrogen, Nitrite	GP13725/GN32647	0.50	0.0	mg/l	10	9.44	94.4%	90-110%
Solids, Total Dissolved	GN32685	10	0.0	mg/l	500	506	101.2%	80-120%
Sulfate	GP13725/GN32647	0.50	0.0	mg/l	10	9.47	94.7%	90-110%
Sulfate	GP13827/GN32848	0.50	0.0	mg/l	10	9.55	95.5%	90-110%

Associated Samples:

Batch GN32685: T80117-1, T80117-2, T80117-3
Batch GN32859: T80117-1, T80117-2, T80117-3
Batch GP13695: T80117-3
Batch GP13696: T80117-2
Batch GP13725: T80117-1, T80117-2, T80117-3
Batch GP13805: T80117-2
Batch GP13827: T80117-1, T80117-2, T80117-3
Batch GP13853: T80117-1, T80117-3
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80117
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN32859	T79984-1	mg/l	320	99.0	0%	0-10%
BOD, 5 Day	GP13695/GN32584	T79942-2	mg/l	125	127	1%	0-23%
BOD, 5 Day	GP13696/GN32584	T79952-4	mg/l	302	293	3%	0-23%
Chemical Oxygen Demand	GP13805/GN32805	T79984-1	mg/l	4.3	4.3	0%	0-20%
Chemical Oxygen Demand	GP13853/GN32897	T80117-3	mg/l	32.3	28.3	13%	0-20%
Chloride	GP13827/GN32848	T80117-3	mg/l	27.8	27.9	0%	0-20%
Nitrogen, Nitrate	GP13725/GN32647	T80116-1	mg/l	0.0	0.0	0%	0-20%
Nitrogen, Nitrite	GP13725/GN32647	T80116-1	mg/l	0.0	0.0	0%	0-20%
Solids, Total Dissolved	GN32685	T79818-2	mg/l	647	641	0%	0-5%
Sulfate	GP13725/GN32647	T80116-1	mg/l	0.93	0.87	6%	0-20%
Sulfate	GP13827/GN32848	T80117-3	mg/l	45.3	45.0	0%	0-20%
pH	GN32815	T80735-1	su	8.35	8.35	0%	0-6.8%

Associated Samples:

Batch GN32685: T80117-1, T80117-2, T80117-3
Batch GN32815: T80117-1, T80117-2, T80117-3
Batch GN32859: T80117-1, T80117-2, T80117-3
Batch GP13695: T80117-3
Batch GP13696: T80117-2
Batch GP13725: T80117-1, T80117-2, T80117-3
Batch GP13805: T80117-2
Batch GP13827: T80117-1, T80117-2, T80117-3
Batch GP13853: T80117-1, T80117-3

(*) Outside of QC limits

7.2
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80117
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN32859	T79984-1	mg/l	320	25	123	96.0	79-122%
Chemical Oxygen Demand	GP13805/GN32805	T79984-1	mg/l	4.3	60	60.3	93.3	90-110%
Chemical Oxygen Demand	GP13853/GN32897	T80117-3	mg/l	32.3	60	90.4	96.8	90-110%
Chloride	GP13827/GN32848	T80117-3	mg/l	27.8	50	74.3	93.0	80-120%
Nitrogen, Nitrate	GP13725/GN32647	T80116-1	mg/l	0.0	10	9.2	92.0	80-120%
Nitrogen, Nitrite	GP13725/GN32647	T80116-1	mg/l	0.0	10	9.6	96.0	80-120%
Sulfate	GP13725/GN32647	T80116-1	mg/l	0.93	10	10.5	95.7	80-120%
Sulfate	GP13827/GN32848	T80117-3	mg/l	45.3	50	95.0	99.4	80-120%

Associated Samples:

Batch GN32859: T80117-1, T80117-2, T80117-3

Batch GP13725: T80117-1, T80117-2, T80117-3

Batch GP13805: T80117-2

Batch GP13827: T80117-1, T80117-2, T80117-3

Batch GP13853: T80117-1, T80117-3

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Gulf Coast

ACCUTEST

LABORATORIES

07/15/11

Technical Report for

Conoco Phillips

CRA: Wingate Fractionating Plant

COP - Wingate

Accutest Job Number: T80268

Sampling Date: 06/30/11

Report to:

Conestoga Rovers & Associates
6121 Indian School Rd. NE, Ste. 200
Albuquerque, NM 87110
keblanchard@croworld.com; christine.mathews@tetrattech.com;
cassandre.brown@tetrattech.com
ATTN: Kelly Blanchard

Total number of pages in report: 87



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Erica Cardenas 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

Sections:

1
2
3
4
5
6
7

-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: T80268-1: GW-075006-063011-CFM-007	5
2.2: T80268-1F: GW-075006-063011-CFM-007 (DISSOLVED)	12
2.3: T80268-2: GW-075006-063011-CFM-008	13
2.4: T80268-2F: GW-075006-063011-CFM-008 (DISSOLVED)	20
2.5: T80268-3: GW-075006-063011-CFM-009	21
2.6: T80268-3F: GW-075006-063011-CFM-009 (DISSOLVED)	28
2.7: T80268-4: GW-075006-063011-CFM-010	29
2.8: T80268-4F: GW-075006-063011-CFM-010 (DISSOLVED)	36
2.9: T80268-5: TB-063011-001	37
Section 3: Misc. Forms	38
3.1: Chain of Custody	39
Section 4: GC/MS Volatiles - QC Data Summaries	43
4.1: Method Blank Summary	44
4.2: Blank Spike Summary	52
4.3: Matrix Spike/Matrix Spike Duplicate Summary	60
Section 5: GC/MS Semi-volatiles - QC Data Summaries	68
5.1: Method Blank Summary	69
5.2: Blank Spike Summary	72
5.3: Matrix Spike/Matrix Spike Duplicate Summary	75
Section 6: Metals Analysis - QC Data Summaries	78
6.1: Prep QC MP15157: As,Ba,Cd,Ca,Cr,Fe,Pb,Mg,Mn,Se,Ag,Na	79
Section 7: General Chemistry - QC Data Summaries	84
7.1: Method Blank and Spike Results Summary	85
7.2: Duplicate Results Summary	86
7.3: Matrix Spike Results Summary	87

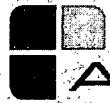
Sample Summary

Conoco Phillips

Job No: T80268

CRA: Wingate Fractionating Plant
Project No: COP - Wingate

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
T80268-1	06/30/11	08:55	07/01/11	AQ	Ground Water	GW-075006-063011-CFM-007
T80268-1F	06/30/11	08:55	07/01/11	AQ	Groundwater Filtered	GW-075006-063011-CFM-007 (DISSOLVED)
T80268-2	06/30/11	11:00	07/01/11	AQ	Ground Water	GW-075006-063011-CFM-008
T80268-2F	06/30/11	11:00	07/01/11	AQ	Groundwater Filtered	GW-075006-063011-CFM-008 (DISSOLVED)
T80268-3	06/30/11	12:45	07/01/11	AQ	Ground Water	GW-075006-063011-CFM-009
T80268-3F	06/30/11	12:45	07/01/11	AQ	Groundwater Filtered	GW-075006-063011-CFM-009 (DISSOLVED)
T80268-4	06/30/11	15:10	07/01/11	AQ	Ground Water	GW-075006-063011-CFM-010
T80268-4F	06/30/11	15:10	07/01/11	AQ	Groundwater Filtered	GW-075006-063011-CFM-010 (DISSOLVED)
T80268-5	06/30/11	16:15	07/01/11	AQ	Trip Blank Water	TB-063011-001



Gulf Coast

ACCUTEST®

LABORATORIES

2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-007
Lab Sample ID: T80268-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036354.D	1	07/10/11	JL	n/a	n/a	VM1485
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-007
Lab Sample ID: T80268-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		79-122%
17060-07-0	1,2-Dichloroethane-D4	107%		75-121%
2037-26-5	Toluene-D8	102%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	GW-075006-063011-CFM-007	Date Sampled:	06/30/11
Lab Sample ID:	T80268-1	Date Received:	07/01/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	115%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-063011-CFM-007	Date Sampled:	06/30/11
Lab Sample ID:	T80268-1	Date Received:	07/01/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18983.D	1	07/08/11	SC	07/05/11	OP19165	EP908
Run #2							

Run #	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.011	0.0054	mg/l	
95-57-8	2-Chlorophenol	ND	0.0054	0.0013	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0054	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0054	0.0024	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0054	0.0014	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.027	0.016	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0015	mg/l	
95-48-7	2-Methylphenol	ND	0.0054	0.00090	mg/l	
	3&4-Methylphenol	ND	0.0054	0.0017	mg/l	
88-75-5	2-Nitrophenol	ND	0.0054	0.0021	mg/l	
100-02-7	4-Nitrophenol	ND	0.027	0.0072	mg/l	
87-86-5	Pentachlorophenol	ND	0.027	0.014	mg/l	
108-95-2	Phenol	ND	0.0054	0.00081	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0054	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0054	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0054	0.0017	mg/l	
208-96-8	Acenaphthylene	ND	0.0054	0.0013	mg/l	
62-53-3	Aniline	ND	0.0054	0.0049	mg/l	
120-12-7	Anthracene	ND	0.0054	0.0012	mg/l	
92-87-5	Benzidine	ND	0.027	0.0064	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0054	0.0012	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0054	0.0012	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0054	0.00093	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0054	0.0018	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0054	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0054	0.0015	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0054	0.0018	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0054	0.0014	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0054	0.0015	mg/l	
106-47-8	4-Chloroaniline	ND	0.0054	0.0046	mg/l	
86-74-8	Carbazole	ND	0.0054	0.0016	mg/l	
218-01-9	Chrysene	ND	0.0054	0.0011	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-007

Lab Sample ID: T80268-1

Date Sampled: 06/30/11

Matrix: AQ - Ground Water

Date Received: 07/01/11

Method: SW846 8270C SW846 3510C

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0054	0.0014	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0054	0.0014	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0054	0.0021	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0054	0.0014	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0054	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0054	0.0015	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0054	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0054	0.0014	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0054	0.0015	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0054	0.0014	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0034	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0054	0.0017	mg/l	
132-64-9	Dibenzofuran	ND	0.0054	0.0014	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0054	0.0011	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0054	0.0014	mg/l	
84-66-2	Diethyl phthalate	ND	0.0054	0.0012	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0054	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0054	0.0019	mg/l	
206-44-0	Fluoranthene	ND	0.0054	0.0010	mg/l	
86-73-7	Fluorene	ND	0.0054	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0054	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0054	0.0012	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0056	mg/l	
67-72-1	Hexachloroethane	ND	0.0054	0.0010	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0054	0.0019	mg/l	
78-59-1	Isophorone	ND	0.0054	0.0013	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0054	0.0012	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0054	0.0014	mg/l	
88-74-4	2-Nitroaniline	ND	0.0054	0.0015	mg/l	
99-09-2	3-Nitroaniline	ND	0.0054	0.0036	mg/l	
100-01-6	4-Nitroaniline	ND	0.0054	0.0025	mg/l	
91-20-3	Naphthalene	ND	0.0054	0.0012	mg/l	
98-95-3	Nitrobenzene	ND	0.0054	0.0019	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0054	0.0010	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0054	0.0015	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0054	0.0018	mg/l	
85-01-8	Phenanthrene	ND	0.0054	0.0010	mg/l	
129-00-0	Pyrene	ND	0.0054	0.0018	mg/l	
110-86-1	Pyridine	ND	0.0054	0.0011	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0054	0.0014	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-063011-CFM-007
Lab Sample ID: T80268-1
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	18%		10-66%
4165-62-2	Phenol-d5	18%		10-53%
118-79-6	2,4,6-Tribromophenol	34%		32-128%
4165-60-0	Nitrobenzene-d5	40%		29-115%
321-60-8	2-Fluorobiphenyl	44%		34-113%
1718-51-0	Terphenyl-d14	46%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-063011-CFM-007

Lab Sample ID: T80268-1

Date Sampled: 06/30/11

Matrix: AQ - Ground Water

Date Received: 07/01/11

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	1000	20	mg/l	1	07/12/11 09:00	MC	SM 2320B
Chemical Oxygen Demand ^a	68.6	40	mg/l	2	07/12/11	BF	SM 5220D
Chloride	900	250	mg/l	500	07/02/11 02:12	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	2.2	0.50	mg/l	1	07/01/11 19:24	ES	EPA 300/SW846 9056
Solids, Total Dissolved	4830	50	mg/l	1	07/06/11	BG	SM 2540C
Sulfate	1530	250	mg/l	500	07/02/11 02:12	ES	EPA 300/SW846 9056
pH	7.46		su	1	07/01/11 15:51	SS	SM 4500H+ B/9040

(a) Analysis run at a 2x dilution due to matrix interference of sample.

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	GW-075006-063011-CFM-007 (DISSOLVED)		
Lab Sample ID:	T80268-1F	Date Sampled:	06/30/11
Matrix:	AQ - Groundwater Filtered	Date Received:	07/01/11
		Percent Solids:	n/a
Project:	CRA: Wingate Fractionating Plant		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Barium	< 200	200	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Calcium	75200	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Iron	< 100	100	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Magnesium	33900	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Manganese	< 15	15	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Sodium	1360000	25000	ug/l	5	07/04/11	07/13/11 EG	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA5912

(2) Instrument QC Batch: MA5918

(3) Prep QC Batch: MP15157

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-008
 Lab Sample ID: T80268-2
 Matrix: AQ - Ground Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
 Date Received: 07/01/11
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0074158.D	1	07/12/11	DR	n/a	n/a	VX1097
Run #2 ^a	X0074060.D	1	07/07/11	JL	n/a	n/a	VX1092

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-008
Lab Sample ID: T80268-2
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	92%	79-122%
17060-07-0	1,2-Dichloroethane-D4	97%	86%	75-121%
2037-26-5	Toluene-D8	99%	90%	87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	GW-075006-063011-CFM-008	Date Sampled:	06/30/11
Lab Sample ID:	T80268-2	Date Received:	07/01/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%	89%	80-133%

(a) Sample reported for QC purposes only.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-063011-CFM-008	Date Sampled:	06/30/11
Lab Sample ID:	T80268-2	Date Received:	07/01/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18984.D	1	07/08/11	SC	07/05/11	OP19165	EP908
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.010	0.0051	mg/l	
95-57-8	2-Chlorophenol	ND	0.0051	0.0012	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0051	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0051	0.0023	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0051	0.0013	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.015	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.010	0.0014	mg/l	
95-48-7	2-Methylphenol	ND	0.0051	0.00085	mg/l	
	3&4-Methylphenol	ND	0.0051	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0051	0.0020	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.0068	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.013	mg/l	
108-95-2	Phenol	ND	0.0051	0.00077	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0051	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0051	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0051	0.0016	mg/l	
208-96-8	Acenaphthylene	ND	0.0051	0.0012	mg/l	
62-53-3	Aniline	ND	0.0051	0.0047	mg/l	
120-12-7	Anthracene	ND	0.0051	0.0011	mg/l	
92-87-5	Benzidine	ND	0.026	0.0061	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0051	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0051	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0051	0.00089	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0051	0.0017	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0051	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0051	0.0014	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0051	0.0017	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0051	0.0013	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0051	0.0014	mg/l	
106-47-8	4-Chloroaniline	ND	0.0051	0.0043	mg/l	
86-74-8	Carbazole	ND	0.0051	0.0015	mg/l	
218-01-9	Chrysene	ND	0.0051	0.0010	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-008
Lab Sample ID: T80268-2
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0051	0.0013	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0051	0.0013	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0051	0.0020	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0051	0.0013	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0051	0.0014	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0051	0.0015	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0051	0.0014	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.010	0.0033	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0051	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0051	0.0014	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0051	0.0010	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0051	0.0013	mg/l	
84-66-2	Diethyl phthalate	ND	0.0051	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0051	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0051	0.0018	mg/l	
206-44-0	Fluoranthene	ND	0.0051	0.00099	mg/l	
86-73-7	Fluorene	ND	0.0051	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0051	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0051	0.0011	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.010	0.0053	mg/l	
67-72-1	Hexachloroethane	ND	0.0051	0.00099	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0051	0.0018	mg/l	
78-59-1	Isophorone	ND	0.0051	0.0012	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0051	0.0011	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0051	0.0013	mg/l	
88-74-4	2-Nitroaniline	ND	0.0051	0.0014	mg/l	
99-09-2	3-Nitroaniline	ND	0.0051	0.0034	mg/l	
100-01-6	4-Nitroaniline	ND	0.0051	0.0024	mg/l	
91-20-3	Naphthalene	ND	0.0051	0.0012	mg/l	
98-95-3	Nitrobenzene	ND	0.0051	0.0018	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0051	0.00099	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0051	0.0014	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0051	0.0017	mg/l	
85-01-8	Phenanthrene	ND	0.0051	0.00099	mg/l	
129-00-0	Pyrene	ND	0.0051	0.0017	mg/l	
110-86-1	Pyridine	ND	0.0051	0.0010	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0051	0.0013	mg/l	

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-063011-CFM-008
Lab Sample ID: T80268-2
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		10-66%
4165-62-2	Phenol-d5	29%		10-53%
118-79-6	2,4,6-Tribromophenol	33%		32-128%
4165-60-0	Nitrobenzene-d5	30%		29-115%
321-60-8	2-Fluorobiphenyl	35%		34-113%
1718-51-0	Terphenyl-d14	40%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-063011-CFM-008

Lab Sample ID: T80268-2

Date Sampled: 06/30/11

Matrix: AQ - Ground Water

Date Received: 07/01/11

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	664	20	mg/l	1	07/12/11 09:00	MC	SM 2320B
Chemical Oxygen Demand	243	20	mg/l	1	07/12/11	BF	SM 5220D
Chloride	238	10	mg/l	20	07/07/11 22:47	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	07/01/11 19:41	ES	EPA 300/SW846 9056
Solids, Total Dissolved	3130	25	mg/l	1	07/06/11	BG	SM 2540C
Sulfate	1270	250	mg/l	500	07/02/11 02:29	ES	EPA 300/SW846 9056
pH	7.22		su	1	07/01/11 15:51	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-063011-CFM-008 (DISSOLVED)**Lab Sample ID:** T80268-2F**Date Sampled:** 06/30/11**Matrix:** AQ - Groundwater Filtered**Date Received:** 07/01/11**Percent Solids:** n/a**Project:** CRA: Wingate Fractionating Plant

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Barium	< 200	200	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Calcium	135000	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Iron	< 100	100	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Magnesium	38700	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Manganese	336	15	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ³
Sodium	752000	25000	ug/l	5	07/04/11	07/13/11 EG	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA5912

(2) Instrument QC Batch: MA5918

(3) Prep QC Batch: MP15157

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID: GW-075006-063011-CFM-009
Lab Sample ID: T80268-3
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036341.D	1	07/10/11	JL	n/a	n/a	VM1485
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-009
Lab Sample ID: T80268-3
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11

Date Received: 07/01/11

Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		79-122%
17060-07-0	1,2-Dichloroethane-D4	101%		75-121%
2037-26-5	Toluene-D8	103%		87-119%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-063011-CFM-009	Date Sampled: 06/30/11
Lab Sample ID: T80268-3	Date Received: 07/01/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: CRA: Wingate Fractionating Plant	

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	115%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-063011-CFM-009	Date Sampled:	06/30/11
Lab Sample ID:	T80268-3	Date Received:	07/01/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	P18985.D	1	07/08/11	SC	07/05/11	OP19165	EP908

Run #1	Initial Volume	Final Volume
Run #2	940 ml	1.0 ml

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.011	0.0053	mg/l	
95-57-8	2-Chlorophenol	ND	0.0053	0.0013	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0053	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0053	0.0024	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0053	0.0014	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.027	0.016	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.011	0.0015	mg/l	
95-48-7	2-Methylphenol	ND	0.0053	0.00089	mg/l	
	3&4-Methylphenol	ND	0.0053	0.0017	mg/l	
88-75-5	2-Nitrophenol	ND	0.0053	0.0021	mg/l	
100-02-7	4-Nitrophenol	ND	0.027	0.0071	mg/l	
87-86-5	Pentachlorophenol	ND	0.027	0.014	mg/l	
108-95-2	Phenol	ND	0.0053	0.00080	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0053	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0053	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0053	0.0017	mg/l	
208-96-8	Acenaphthylene	ND	0.0053	0.0013	mg/l	
62-53-3	Aniline	ND	0.0053	0.0049	mg/l	
120-12-7	Anthracene	ND	0.0053	0.0012	mg/l	
92-87-5	Benzidine	ND	0.027	0.0064	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0053	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0053	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0053	0.00092	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0053	0.0018	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0053	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0053	0.0015	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0053	0.0017	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0053	0.0014	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0053	0.0015	mg/l	
106-47-8	4-Chloroaniline	ND	0.0053	0.0045	mg/l	
86-74-8	Carbazole	ND	0.0053	0.0016	mg/l	
218-01-9	Chrysene	ND	0.0053	0.0010	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-009
 Lab Sample ID: T80268-3
 Matrix: AQ - Ground Water
 Method: SW846 8270C SW846 3510C
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
 Date Received: 07/01/11
 Percent Solids: n/a

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0053	0.0014	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0053	0.0014	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0053	0.0021	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0053	0.0014	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0053	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0053	0.0015	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0053	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0053	0.0014	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0053	0.0015	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0053	0.0014	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.011	0.0034	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0053	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0053	0.0014	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0053	0.0011	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0053	0.0014	mg/l	
84-66-2	Diethyl phthalate	ND	0.0053	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0053	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0053	0.0019	mg/l	
206-44-0	Fluoranthene	ND	0.0053	0.0010	mg/l	
86-73-7	Fluorene	ND	0.0053	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0053	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0053	0.0012	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.011	0.0055	mg/l	
67-72-1	Hexachloroethane	ND	0.0053	0.0010	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0053	0.0019	mg/l	
78-59-1	Isophorone	ND	0.0053	0.0013	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0053	0.0012	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0053	0.0014	mg/l	
88-74-4	2-Nitroaniline	ND	0.0053	0.0015	mg/l	
99-09-2	3-Nitroaniline	ND	0.0053	0.0035	mg/l	
100-01-6	4-Nitroaniline	ND	0.0053	0.0025	mg/l	
91-20-3	Naphthalene	ND	0.0053	0.0012	mg/l	
98-95-3	Nitrobenzene	ND	0.0053	0.0018	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0053	0.0010	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0053	0.0015	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0053	0.0018	mg/l	
85-01-8	Phenanthrene	ND	0.0053	0.0010	mg/l	
129-00-0	Pyrene	ND	0.0053	0.0018	mg/l	
110-86-1	Pyridine	ND	0.0053	0.0011	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0053	0.0014	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-063011-CFM-009
Lab Sample ID: T80268-3
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%		10-66%
4165-62-2	Phenol-d5	36%		10-53%
118-79-6	2,4,6-Tribromophenol	103%		32-128%
4165-60-0	Nitrobenzene-d5	66%		29-115%
321-60-8	2-Fluorobiphenyl	73%		34-113%
1718-51-0	Terphenyl-d14	85%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-063011-CFM-009

Lab Sample ID: T80268-3

Matrix: AQ - Ground Water

Date Sampled: 06/30/11

Date Received: 07/01/11

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	760	20	mg/l	1	07/12/11 09:00	MC	SM 2320B
Chemical Oxygen Demand	24.3	20	mg/l	1	07/12/11	BF	SM 5220D
Chloride	157	25	mg/l	50	07/02/11 02:46	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	<0.50	0.50	mg/l	1	07/01/11 19:58	ES	EPA 300/SW846 9056
Solids, Total Dissolved	1580	11	mg/l	1	07/06/11	BG	SM 2540C
Sulfate	256	25	mg/l	50	07/02/11 02:46	ES	EPA 300/SW846 9056
pH	7.72		su	1	07/01/11 15:51	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-063011-CFM-009 (DISSOLVED)
Lab Sample ID: T80268-3F
Matrix: AQ - Groundwater Filtered
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Barium	< 200	200	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Cadmium	< 4.0	4.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Calcium	12600	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Chromium	< 10	10	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Iron	< 100	100	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Lead	< 3.0	3.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Magnesium	12400	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Manganese	261	15	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Selenium	< 5.0	5.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Silver	< 10	10	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Sodium	442000	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA5912

(2) Prep QC Batch: MP15157

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-010
 Lab Sample ID: T80268-4
 Matrix: AQ - Ground Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
 Date Received: 07/01/11
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M0036355.D	1	07/11/11	JL	n/a	n/a	VM1485
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank.
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-010
Lab Sample ID: T80268-4
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		79-122%
17060-07-0	1,2-Dichloroethane-D4	106%		75-121%
2037-26-5	Toluene-D8	99%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-063011-CFM-010	Date Sampled: 06/30/11
Lab Sample ID: T80268-4	Date Received: 07/01/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: CRA: Wingate Fractionating Plant	

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	114%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-063011-CFM-010	Date Sampled:	06/30/11
Lab Sample ID:	T80268-4	Date Received:	07/01/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P18986.D	1	07/08/11	SC	07/05/11	OP19165	EP908
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.010	0.0050	mg/l	
95-57-8	2-Chlorophenol	ND	0.0050	0.0012	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0050	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0050	0.0022	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0050	0.0013	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.025	0.015	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.010	0.0014	mg/l	
95-48-7	2-Methylphenol	ND	0.0050	0.00083	mg/l	
	3&4-Methylphenol	ND	0.0050	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0050	0.0020	mg/l	
100-02-7	4-Nitrophenol	ND	0.025	0.0067	mg/l	
87-86-5	Pentachlorophenol	ND	0.025	0.013	mg/l	
108-95-2	Phenol	ND	0.0050	0.00075	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0050	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0050	0.0011	mg/l	
83-32-9	Acenaphthene	ND	0.0050	0.0016	mg/l	
208-96-8	Acenaphthylene	ND	0.0050	0.0012	mg/l	
62-53-3	Aniline	ND	0.0050	0.0046	mg/l	
120-12-7	Anthracene	ND	0.0050	0.0011	mg/l	
92-87-5	Benzidine	ND	0.025	0.0060	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0050	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0050	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0050	0.00087	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0050	0.0017	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0050	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0050	0.0014	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0050	0.0016	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0050	0.0013	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0050	0.0014	mg/l	
106-47-8	4-Chloroaniline	ND	0.0050	0.0043	mg/l	
86-74-8	Carbazole	ND	0.0050	0.0015	mg/l	
218-01-9	Chrysene	ND	0.0050	0.00098	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-063011-CFM-010
Lab Sample ID: T80268-4
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11

Date Received: 07/01/11

Percent Solids: n/a

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0050	0.0013	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0050	0.0013	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0050	0.0020	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0050	0.0013	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0050	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0050	0.0014	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0050	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0050	0.0013	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0050	0.0014	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0050	0.0013	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.010	0.0032	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0050	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0050	0.0013	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0050	0.0010	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0050	0.0013	mg/l	
84-66-2	Diethyl phthalate	ND	0.0050	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0050	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0050	0.0018	mg/l	
206-44-0	Fluoranthene	ND	0.0050	0.00097	mg/l	
86-73-7	Fluorene	ND	0.0050	0.0013	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0050	0.0013	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0050	0.0011	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.010	0.0052	mg/l	
67-72-1	Hexachloroethane	ND	0.0050	0.00097	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0050	0.0018	mg/l	
78-59-1	Isophorone	ND	0.0050	0.0012	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0050	0.0011	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0050	0.0013	mg/l	
88-74-4	2-Nitroaniline	ND	0.0050	0.0014	mg/l	
99-09-2	3-Nitroaniline	ND	0.0050	0.0033	mg/l	
100-01-6	4-Nitroaniline	ND	0.0050	0.0023	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0011	mg/l	
98-95-3	Nitrobenzene	ND	0.0050	0.0017	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0050	0.00097	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0050	0.0014	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0050	0.0017	mg/l	
85-01-8	Phenanthrene	ND	0.0050	0.00097	mg/l	
129-00-0	Pyrene	ND	0.0050	0.0017	mg/l	
110-86-1	Pyridine	ND	0.0050	0.00099	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0050	0.0013	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-063011-CFM-010
Lab Sample ID: T80268-4
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	38%		10-66%
4165-62-2	Phenol-d5	37%		10-53%
118-79-6	2,4,6-Tribromophenol	91%		32-128%
4165-60-0	Nitrobenzene-d5	62%		29-115%
321-60-8	2-Fluorobiphenyl	68%		34-113%
1718-51-0	Terphenyl-d14	84%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-063011-CFM-010
Lab Sample ID: T80268-4
Matrix: AQ - Ground Water
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	536	20	mg/l	1	07/12/11 09:00	MC	SM 2320B
Chemical Oxygen Demand	< 20	20	mg/l	1	07/12/11	BF	SM 5220D
Chloride	67.3	25	mg/l	50	07/02/11 03:03	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	07/01/11 20:15	ES	EPA 300/SW846 9056
Solids, Total Dissolved	1250	10	mg/l	1	07/06/11	BG	SM 2540C
Sulfate	337	25	mg/l	50	07/02/11 03:03	ES	EPA 300/SW846 9056
pH	7.46		su	1	07/01/11 15:51	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-063011-CFM-010 (DISSOLVED)
Lab Sample ID: T80268-4F
Matrix: AQ - Groundwater Filtered
Project: CRA: Wingate Fractionating Plant

Date Sampled: 06/30/11
Date Received: 07/01/11
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Barium	< 200	200	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Cadmium	< 4.0	4.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Calcium	37400	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Chromium	< 10	10	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Iron	< 100	100	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Lead	< 3.0	3.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Magnesium	13500	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Manganese	146	15	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Selenium	< 5.0	5.0	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Silver	< 10	10	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²
Sodium	296000	5000	ug/l	1	07/04/11	07/11/11 EG	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA5912

(2) Prep QC Batch: MP15157

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	TB-063011-001	Date Sampled:	06/30/11
Lab Sample ID:	T80268-5	Date Received:	07/01/11
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F035859.D	1	07/07/11	AK	n/a	n/a	VF4323
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

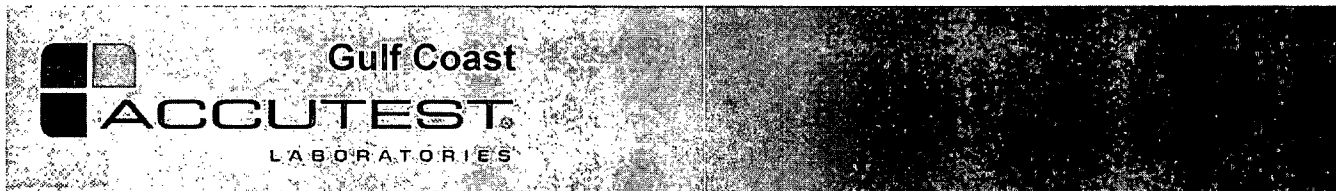
Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	0.0020	0.0010	0.00026	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		79-122%
17060-07-0	1,2-Dichloroethane-D4	96%		75-121%
2037-26-5	Toluene-D8	104%		87-119%
460-00-4	4-Bromofluorobenzene	121%		80-133%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



Accutest Laboratories Sample Receipt Summary

Page 1 of 3

Accutest Job Number: T80268 Client: CONOCO PHILLIPS Project: WINGATE FRATIONATING PLANT
Date / Time Received: 7/1/2011 Delivery Method: Airbill #'s: 486899912491, 486899909109
No. Coolers: 2 Therm ID: IRGUN4; Temp Adjustment Factor: -0.1;
Cooler Temps (Initial/Adjusted): #1: (5.5/5.4); #2: (4.3/4.2);

Cooler Security

Y or N

1. Custody Seals Present: ☒ ☐

3. COC Present:

Y or N

☒ ☐

2. Custody Seals Intact: ☒ ☐

4. Smpl Dates/Time OK

☒ ☐

Cooler Temperature

Y or N

1. Temp criteria achieved:

☒ ☐

2. Cooler temp verification:

IR Gun

3. Cooler media:

Ice (Bag)

Quality Control Preservation

Y or N

N/A

WTB STB

1. Trip Blank present / cooler:

☐ ☐

☒

2. Trip Blank listed on COC:

☐ ☐

☒

3. Samples preserved properly:

☒ ☐

4. VOCs headspace free:

☐ ☐

☒

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles:

☒ ☐

2. Container labeling complete:

☒ ☐

3. Sample container label / COC agree:

☒ ☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT:

☒ ☐

2. All containers accounted for:

☒ ☐

3. Condition of sample:

Intact

Sample Integrity - Instructions

Y or N

N/A

1. Analysis requested is clear:

☒ ☐

2. Bottles received for unspecified tests

☐ ☒

3. Sufficient volume recvd for analysis:

☒ ☐

4. Compositing instructions clear:

☐ ☐

☒

5. Filtering instructions clear:

☐ ☐

☒

Comments

[Signature] 7/1/11

Accutest Laboratories
V: 713.271.4700

10165 Harwin Drive
F: 713.271.4770

Houston, TX 77038
www.accutest.com

T80268: Chain of Custody

Page 2 of 4

Job #: T80268

Date / Time Received: 7/1/2011 10:10:00 AM

Initials: VG

Client: CONOCO PHILLIPS

 3.1


Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T80268-1	LAG	1	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.5	-0.1	5.4
1	T80268-1	LAG	2	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.5	-0.1	5.4
1	T80268-1	1000 ml	3	3E	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.5	-0.1	5.4
1	T80268-1	500 ml	4	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.5	-0.1	5.4
2	T80268-1	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-1	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-1	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
1	T80268-2	LAG	1	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.5	-0.1	5.4
1	T80268-2	LAG	2	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.5	-0.1	5.4
1	T80268-2	1000 ml	3	3E	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.5	-0.1	5.4
1	T80268-2	500 ml	4	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	5.5	-0.1	5.4
2	T80268-2	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-2	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-2	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-3	LAG	1	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.3	-0.1	4.2
2	T80268-3	LAG	2	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.3	-0.1	4.2
2	T80268-3	1000 ml	3	3E	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.3	-0.1	4.2
2	T80268-3	500 ml	4	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.3	-0.1	4.2
2	T80268-3	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-3	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-3	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-4	LAG	1	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.3	-0.1	4.2
2	T80268-4	LAG	2	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.3	-0.1	4.2

T80268: Chain of Custody

Page 3 of 4

Job #: T80268

Date / Time Received: 7/1/2011 10:10:00 AM

Initials: VG

Client: CONOCO PHILLIPS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
2	T80268-4	1000 ml	3	3E	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.3	-0.1	4.2
2	T80268-4	500 ml	4	1HH	N/P	Note #2 - Preservative check not applicable.	IRGUN4	4.3	-0.1	4.2
2	T80268-4	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-4	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-4	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-5	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2
2	T80268-5	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	IRGUN4	4.3	-0.1	4.2

T80268: Chain of Custody
Page 4 of 4



Gulf Coast

ACCUTEST

LABORATORIES

4

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1092-MB	X0074054.D 1		07/06/11	JL	n/a	n/a	VX1092

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	Result	RL	MDL	Units	Q
---------	----------	--------	----	-----	-------	---

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	92% 79-122%
17060-07-0	1,2-Dichloroethane-D4	85% 75-121%
2037-26-5	Toluene-D8	89% 87-119%
460-00-4	4-Bromofluorobenzene	89% 80-133%

Method Blank Summary

Page 1 of 1

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4323-MB	F035853.D	1	07/07/11	AK	n/a	n/a	VF4323

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	98% 79-122%
17060-07-0	1,2-Dichloroethane-D4	93% 75-121%
2037-26-5	Toluene-D8	104% 87-119%
460-00-4	4-Bromofluorobenzene	119% 80-133%

Method Blank Summary

Page 1 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1485-MB	M0036340.D 1		07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.27	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.34	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.28	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.33	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.87	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.27	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.21	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.25	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1485-MB	M0036340.D 1		07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.27	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.33	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.41	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	108% 79-122%
17060-07-0	1,2-Dichloroethane-D4	104% 75-121%

Method Blank Summary

Page 3 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	Ey	Prep Date	Prep Batch	Analytical Batch
VM1485-MB	M0036340.D 1		07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	101% 87-119%
460-00-4	4-Bromofluorobenzene	115% 80-133%

Method Blank Summary

Page 1 of 3

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D 1		07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.27	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.34	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.28	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.33	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.87	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.27	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.21	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.25	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.27	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.33	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.41	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 79-122%
17060-07-0	1,2-Dichloroethane-D4	96% 75-121%

Method Blank Summary

Page 3 of 3

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No. Surrogate Recoveries

Limits

2037-26-5 Toluene-D8

97%

87-119%

460-00-4 4-Bromofluorobenzene

98%

80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1092-BS	X0074052.D 1		07/06/11	JL	n/a	n/a	VX1092

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
---------	----------	---------------	-------------	----------	--------

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	79-122%
17060-07-0	1,2-Dichloroethane-D4	85%	75-121%
2037-26-5	Toluene-D8	91%	87-119%
460-00-4	4-Bromofluorobenzene	88%	80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4323-BS	F035850.D	1	07/07/11	AK	n/a	n/a	VF4323

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.9	104	76-118
100-41-4	Ethylbenzene	25	25.8	103	75-112
108-88-3	Toluene	25	25.9	104	77-114
1330-20-7	Xylene (total)	75	78.8	105	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	79-122%
17060-07-0	1,2-Dichloroethane-D4	97%	75-121%
2037-26-5	Toluene-D8	103%	87-119%
460-00-4	4-Bromofluorobenzene	118%	80-133%

Blank Spike Summary

Page 1 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1485-BS	M0036338.D 1		07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	111	89	62-124
71-43-2	Benzene	25	24.0	96	76-118
108-86-1	Bromobenzene	25	21.1	84	72-110
74-97-5	Bromochloromethane	25	22.3	89	69-110
75-27-4	Bromodichloromethane	25	21.5	86	68-107
75-25-2	Bromoform	25	21.7	87	64-103
104-51-8	n-Butylbenzene	25	22.8	91	74-114
135-98-8	sec-Butylbenzene	25	22.6	90	76-118
98-06-6	tert-Butylbenzene	25	22.8	91	72-116
108-90-7	Chlorobenzene	25	23.3	93	74-111
75-00-3	Chloroethane	25	26.2	105	75-135
67-66-3	Chloroform	25	22.8	91	75-117
95-49-8	o-Chlorotoluene	25	21.5	86	74-113
106-43-4	p-Chlorotoluene	25	22.7	91	72-114
75-15-0	Carbon disulfide	25	23.0	92	57-126
56-23-5	Carbon tetrachloride	25	25.4	102	75-125
75-34-3	1,1-Dichloroethane	25	23.2	93	76-121
75-35-4	1,1-Dichloroethylene	25	27.2	109	71-128
563-58-6	1,1-Dichloropropene	25	23.2	93	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	25.9	104	55-121
106-93-4	1,2-Dibromoethane	25	22.9	92	69-106
107-06-2	1,2-Dichloroethane	25	24.9	100	70-111
78-87-5	1,2-Dichloropropane	25	21.7	87	71-113
142-28-9	1,3-Dichloropropane	25	22.1	88	69-106
594-20-7	2,2-Dichloropropane	25	25.9	104	68-130
124-48-1	Dibromochloromethane	25	20.8	83	69-104
75-71-8	Dichlorodifluoromethane	25	34.6	138* a	28-120
156-59-2	cis-1,2-Dichloroethylene	25	21.8	87	68-113
10061-01-5	cis-1,3-Dichloropropene	25	21.0	84	71-111
541-73-1	m-Dichlorobenzene	25	22.7	91	74-110
95-50-1	o-Dichlorobenzene	25	22.4	90	72-108
106-46-7	p-Dichlorobenzene	25	24.3	97	74-110
156-60-5	trans-1,2-Dichloroethylene	25	23.7	95	70-125
10061-02-6	trans-1,3-Dichloropropene	25	24.5	98	75-111
100-41-4	Ethylbenzene	25	21.6	86	75-112
591-78-6	2-Hexanone	125	108	86	60-113

Blank Spike Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1485-BS	M0036338.D 1		07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	25.2	101	72-123
98-82-8	Isopropylbenzene	25	26.0	104	75-123
99-87-6	p-Isopropyltoluene	25	22.7	91	76-116
108-10-1	4-Methyl-2-pentanone	125	102	82	63-115
74-83-9	Methyl bromide	25	26.0	104	59-132
74-87-3	Methyl chloride	25	26.4	106	56-150
74-95-3	Methylene bromide	25	23.6	94	68-114
75-09-2	Methylene chloride	25	22.9	92	70-113
78-93-3	Methyl ethyl ketone	125	114	91	62-117
1634-04-4	Methyl Tert Butyl Ether	25	20.2	81	65-113
91-20-3	Naphthalene	25	24.7	99	53-127
103-65-1	n-Propylbenzene	25	22.0	88	74-115
100-42-5	Styrene	25	22.1	88	76-110
630-20-6	1,1,1,2-Tetrachloroethane	25	21.2	85	72-108
71-55-6	1,1,1-Trichloroethane	25	24.9	100	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	22.3	89	67-110
79-00-5	1,1,2-Trichloroethane	25	23.1	92	69-107
87-61-6	1,2,3-Trichlorobenzene	25	25.9	104	51-128
96-18-4	1,2,3-Trichloropropane	25	22.1	88	55-116
120-82-1	1,2,4-Trichlorobenzene	25	22.6	90	63-114
95-63-6	1,2,4-Trimethylbenzene	25	21.4	86	73-111
108-67-8	1,3,5-Trimethylbenzene	25	21.4	86	74-115
127-18-4	Tetrachloroethylene	25	25.4	102	77-120
108-88-3	Toluene	25	22.6	90	77-114
79-01-6	Trichloroethylene	25	23.4	94	74-117
75-69-4	Trichlorofluoromethane	25	28.3	113	64-132
75-01-4	Vinyl chloride	25	23.8	95	64-121
1330-20-7	Xylene (total)	75	66.9	89	75-111
	m,p-Xylene	50	44.4	89	75-112
95-47-6	o-Xylene	25	22.5	90	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	79-122%
17060-07-0	1,2-Dichloroethane-D4	103%	75-121%

Blank Spike Summary

Page 3 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	Ey	Prep Date	Prep Batch	Analytical Batch
VM1485-BS	M0036338.D 1		07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	105%	87-119%
460-00-4	4-Bromofluorobenzene	110%	80-133%

(a) Outside control limits biased high. Only ND results for this compound are reported for all the samples associated with this BS. AZ: L1

Blank Spike Summary

Page 1 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	100	80	62-124
71-43-2	Benzene	25	24.3	97	76-118
108-86-1	Bromobenzene	25	23.6	94	72-110
74-97-5	Bromochloromethane	25	23.9	96	69-110
75-27-4	Bromodichloromethane	25	23.9	96	68-107
75-25-2	Bromoform	25	22.9	92	64-103
104-51-8	n-Butylbenzene	25	24.5	98	74-114
135-98-8	sec-Butylbenzene	25	25.6	102	76-118
98-06-6	tert-Butylbenzene	25	24.7	99	72-116
108-90-7	Chlorobenzene	25	24.7	99	74-111
75-00-3	Chloroethane	25	26.0	104	75-135
67-66-3	Chloroform	25	23.7	95	75-117
95-49-8	o-Chlorotoluene	25	23.7	95	74-113
106-43-4	p-Chlorotoluene	25	24.7	99	72-114
75-15-0	Carbon disulfide	25	25.5	102	57-126
56-23-5	Carbon tetrachloride	25	26.6	106	75-125
75-34-3	1,1-Dichloroethane	25	25.3	101	76-121
75-35-4	1,1-Dichloroethylene	25	27.7	111	71-128
563-58-6	1,1-Dichloropropene	25	26.8	107	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	22.7	91	55-121
106-93-4	1,2-Dibromoethane	25	23.5	94	69-106
107-06-2	1,2-Dichloroethane	25	23.7	95	70-111
78-87-5	1,2-Dichloropropane	25	24.0	96	71-113
142-28-9	1,3-Dichloropropane	25	22.9	92	69-106
594-20-7	2,2-Dichloropropane	25	26.5	106	68-130
124-48-1	Dibromochloromethane	25	23.8	95	69-104
75-71-8	Dichlorodifluoromethane	25	29.8	119	28-120
156-59-2	cis-1,2-Dichloroethylene	25	24.0	96	68-113
10061-01-5	cis-1,3-Dichloropropene	25	24.3	97	71-111
541-73-1	m-Dichlorobenzene	25	24.5	98	74-110
95-50-1	o-Dichlorobenzene	25	24.1	96	72-108
106-46-7	p-Dichlorobenzene	25	24.2	97	74-110
156-60-5	trans-1,2-Dichloroethylene	25	24.9	100	70-125
10061-02-6	trans-1,3-Dichloropropene	25	25.2	101	75-111
100-41-4	Ethylbenzene	25	24.3	97	75-112
591-78-6	2-Hexanone	125	97.6	78	60-113

Blank Spike Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	Ey	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	26.8	107	72-123
98-82-8	Isopropylbenzene	25	28.9	116	75-123
99-87-6	p-Isopropyltoluene	25	26.0	104	76-116
108-10-1	4-Methyl-2-pentanone	125	100	80	63-115
74-83-9	Methyl bromide	25	26.6	106	59-132
74-87-3	Methyl chloride	25	25.3	101	56-150
74-95-3	Methylene bromide	25	23.5	94	68-114
75-09-2	Methylene chloride	25	23.3	93	70-113
78-93-3	Methyl ethyl ketone	125	104	83	62-117
1634-04-4	Methyl Tert Butyl Ether	25	21.9	88	65-113
91-20-3	Naphthalene	25	22.7	91	53-127
103-65-1	n-Propylbenzene	25	25.1	100	74-115
100-42-5	Styrene	25	24.5	98	76-110
630-20-6	1,1,1,2-Tetrachloroethane	25	24.1	96	72-108
71-55-6	1,1,1-Trichloroethane	25	25.2	101	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	22.1	88	67-110
79-00-5	1,1,2-Trichloroethane	25	22.8	91	69-107
87-61-6	1,2,3-Trichlorobenzene	25	23.9	96	51-128
96-18-4	1,2,3-Trichloropropane	25	22.0	88	55-116
120-82-1	1,2,4-Trichlorobenzene	25	24.3	97	63-114
95-63-6	1,2,4-Trimethylbenzene	25	23.9	96	73-111
108-67-8	1,3,5-Trimethylbenzene	25	23.8	95	74-115
127-18-4	Tetrachloroethylene	25	25.6	102	77-120
108-88-3	Toluene	25	24.3	97	77-114
79-01-6	Trichloroethylene	25	24.5	98	74-117
75-69-4	Trichlorofluoromethane	25	28.8	115	64-132
75-01-4	Vinyl chloride	25	23.9	96	64-121
1330-20-7	Xylene (total)	75	73.1	97	75-111
	m,p-Xylene	50	48.9	98	75-112
95-47-6	o-Xylene	25	24.1	96	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	79-122%
17060-07-0	1,2-Dichloroethane-D4	92%	75-121%

Blank Spike Summary

Page 3 of 3

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	100%	87-119%
460-00-4	4-Bromofluorobenzene	97%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80268-2MS	X0074061.D	1	07/07/11	JL	n/a	n/a	VX1092
T80268-2MSD	X0074062.D	1	07/07/11	JL	n/a	n/a	VX1092
T80268-2 ^a	X0074060.D	1	07/07/11	JL	n/a	n/a	VX1092

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	T80268-2 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
---------	----------	------------------	------------	------------	---------	-------------	----------	-----	-------------------

CAS No.	Surrogate Recoveries	MS	MSD	T80268-2	Limits
1868-53-7	Dibromofluoromethane	91%	91%	92%	79-122%
17060-07-0	1,2-Dichloroethane-D4	83%	87%	86%	75-121%
2037-26-5	Toluene-D8	90%	91%	90%	87-119%
460-00-4	4-Bromofluorobenzene	87%	87%	89%	80-133%

(a) Sample reported for QC purposes only.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T79699-36MS	F035855.D	10000	07/07/11	AK	n/a	n/a	VF4323
T79699-36MSD	F035856.D	10000	07/07/11	AK	n/a	n/a	VF4323
T79699-36	F035854.D	10000	07/07/11	AK	n/a	n/a	VF4323

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-5

CAS No.	Compound	T79699-36 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
71-43-2	Benzene	ND		250000	240000	96	236000	94	2	76-118/16
100-41-4	Ethylbenzene	ND		250000	242000	97	236000	94	3	75-112/12
108-88-3	Toluene	ND		250000	243000	97	239000	96	2	77-114/12
1330-20-7	Xylene (total)	ND		750000	743000	99	724000	97	3	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T79699-36	Limits
1868-53-7	Dibromofluoromethane	101%	101%	100%	79-122%
17060-07-0	1,2-Dichloroethane-D4	100%	97%	95%	75-121%
2037-26-5	Toluene-D8	104%	106%	104%	87-119%
460-00-4	4-Bromofluorobenzene	117%	119%	122%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80268-3MS	M0036342.D	1	07/10/11	JL	n/a	n/a	VM1485
T80268-3MSD	M0036343.D	1	07/10/11	JL	n/a	n/a	VM1485
T80268-3	M0036341.D	1	07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Compound	T80268-3 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	125	129	103	131	105	2	62-124/21
71-43-2	Benzene	ND	25	25.6	102	25.8	103	1	76-118/16
108-86-1	Bromobenzene	ND	25	22.5	90	23.9	96	6	72-110/12
74-97-5	Bromochloromethane	ND	25	23.2	93	23.0	92	1	69-110/12
75-27-4	Bromodichloromethane	ND	25	23.5	94	24.0	96	2	68-107/12
75-25-2	Bromoform	ND	25	23.0	92	25.0	100	8	64-103/14
104-51-8	n-Butylbenzene	ND	25	22.4	90	23.2	93	4	74-114/12
135-98-8	sec-Butylbenzene	ND	25	23.4	94	24.2	97	3	76-118/12
98-06-6	tert-Butylbenzene	ND	25	23.2	93	24.8	99	7	72-116/14
108-90-7	Chlorobenzene	ND	25	25.6	102	25.2	101	2	74-111/11
75-00-3	Chloroethane	ND	25	26.8	107	25.8	103	4	75-135/15
67-66-3	Chloroform	ND	25	25.2	101	24.2	97	4	75-117/12
95-49-8	o-Chlorotoluene	ND	25	22.6	90	22.3	89	1	74-113/12
106-43-4	p-Chlorotoluene	ND	25	22.9	92	24.4	98	6	72-114/12
75-15-0	Carbon disulfide	ND	25	23.8	95	24.3	97	2	57-126/13
56-23-5	Carbon tetrachloride	ND	25	26.7	107	27.5	110	3	75-125/12
75-34-3	1,1-Dichloroethane	ND	25	25.9	104	24.5	98	6	76-121/13
75-35-4	1,1-Dichloroethylene	ND	25	28.7	115	28.1	112	2	71-128/19
563-58-6	1,1-Dichloropropene	ND	25	24.6	98	24.1	96	2	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	25.4	102	27.9	112	9	55-121/33
106-93-4	1,2-Dibromoethane	ND	25	23.7	95	25.0	100	5	69-106/13
107-06-2	1,2-Dichloroethane	ND	25	26.6	106	26.8	107	1	70-111/14
78-87-5	1,2-Dichloropropane	ND	25	24.0	96	23.0	92	4	71-113/12
142-28-9	1,3-Dichloropropane	ND	25	23.9	96	24.1	96	1	69-106/12
594-20-7	2,2-Dichloropropane	ND	25	26.8	107	26.6	106	1	68-130/14
124-48-1	Dibromochloromethane	ND	25	23.2	93	23.4	94	1	69-104/12
75-71-8	Dichlorodifluoromethane	ND	25	34.3	137* a	32.9	132* a	4	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND	25	23.3	93	23.8	95	2	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	25	22.2	89	21.8	87	2	71-111/12
541-73-1	m-Dichlorobenzene	ND	25	22.2	89	23.0	92	4	74-110/12
95-50-1	o-Dichlorobenzene	ND	25	23.4	94	24.0	96	3	72-108/12
106-46-7	p-Dichlorobenzene	ND	25	24.7	99	25.6	102	4	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND	25	25.5	102	25.0	100	2	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND	25	25.1	100	25.6	102	2	75-111/12
100-41-4	Ethylbenzene	ND	25	24.3	97	23.5	94	3	75-112/12
591-78-6	2-Hexanone	ND	125	113	90	120	96	6	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80268-3MS	M0036342.D	1	07/10/11	JL	n/a	n/a	VM1485
T80268-3MSD	M0036343.D	1	07/10/11	JL	n/a	n/a	VM1485
T80268-3	M0036341.D	1	07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Compound	T80268-3 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND	25	22.9	92	24.8	99	8	72-123/17
98-82-8	Isopropylbenzene	ND	25	27.2	109	27.2	109	0	75-123/12
99-87-6	p-Isopropyltoluene	ND	25	23.1	92	24.2	97	5	76-116/12
108-10-1	4-Methyl-2-pentanone	ND	125	109	87	113	90	4	63-115/21
74-83-9	Methyl bromide	ND	25	28.0	112	26.5	106	6	59-132/15
74-87-3	Methyl chloride	ND	25	28.3	113	28.6	114	1	56-150/17
74-95-3	Methylene bromide	ND	25	24.5	98	23.8	95	3	68-114/13
75-09-2	Methylene chloride	ND	25	23.8	95	22.3	89	7	70-113/13
78-93-3	Methyl ethyl ketone	ND	125	120	96	123	98	2	62-117/21
1634-04-4	Methyl Tert Butyl Ether	ND	25	21.6	86	21.7	87	0	65-113/13
91-20-3	Naphthalene	ND	25	21.2	85	24.3	97	14	53-127/34
103-65-1	n-Propylbenzene	ND	25	22.7	91	22.8	91	0	74-115/12
100-42-5	Styrene	ND	25	23.8	95	24.6	98	3	76-110/11
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	24.2	97	23.9	96	1	72-108/11
71-55-6	1,1,1-Trichloroethane	ND	25	27.1	108	27.0	108	0	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	22.8	91	23.5	94	3	67-110/20
79-00-5	1,1,2-Trichloroethane	ND	25	24.1	96	25.2	101	4	69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND	25	22.7	91	24.7	99	8	51-128/31
96-18-4	1,2,3-Trichloropropane	ND	25	22.4	90	24.7	99	10	55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND	25	21.7	87	23.0	92	6	63-114/21
95-63-6	1,2,4-Trimethylbenzene	ND	25	22.4	90	22.7	91	1	73-111/13
108-67-8	1,3,5-Trimethylbenzene	ND	25	21.5	86	22.4	90	4	74-115/12
127-18-4	Tetrachloroethylene	ND	25	26.9	108	27.4	110	2	77-120/13
108-88-3	Toluene	ND	25	24.3	97	24.1	96	1	77-114/12
79-01-6	Trichloroethylene	ND	25	25.0	100	24.3	97	3	74-117/12
75-69-4	Trichlorofluoromethane	ND	25	29.3	117	28.1	112	4	64-132/18
75-01-4	Vinyl chloride	ND	25	24.9	100	25.7	103	3	64-121/19
1330-20-7	Xylene (total)	ND	75	70.8	94	72.8	97	3	75-111/12
	m,p-Xylene	ND	50	47.4	95	48.7	97	3	75-112/12
95-47-6	o-Xylene	ND	25	23.5	94	24.1	96	3	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T80268-3	Limits
1868-53-7	Dibromofluoromethane	106%	106%	105%	79-122%
17060-07-0	1,2-Dichloroethane-D4	102%	100%	101%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80268-3MS	M0036342.D	1	07/10/11	JL	n/a	n/a	VM1485
T80268-3MSD	M0036343.D	1	07/10/11	JL	n/a	n/a	VM1485
T80268-3	M0036341.D	1	07/10/11	JL	n/a	n/a	VM1485

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-1, T80268-3, T80268-4

CAS No.	Surrogate Recoveries	MS	MSD	T80268-3	Limits
2037-26-5	Toluene-D8	103%	106%	103%	87-119%
460-00-4	4-Bromofluorobenzene	105%	112%	115%	80-133%

(a) AZ: M1

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D 50		07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	T80288-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	88.3	125	195	85	195	85	0	62-124/21
71-43-2	Benzene	ND	25	2330	80	2350	160* a	1	76-118/16
108-86-1	Bromobenzene	ND	25	22.0	88	21.9	88	0	72-110/12
74-97-5	Bromochloromethane	ND	25	22.6	90	22.5	90	0	69-110/12
75-27-4	Bromodichloromethane	ND	25	23.1	92	22.7	91	2	68-107/12
75-25-2	Bromoform	ND	25	20.7	83	21.3	85	3	64-103/14
104-51-8	n-Butylbenzene	13.1	25	32.9	79	32.1	76	2	74-114/12
135-98-8	sec-Butylbenzene	8.8	25	30.4	86	29.3	82	4	76-118/12
98-06-6	tert-Butylbenzene	ND	25	20.4	82	19.5	78	5	72-116/14
108-90-7	Chlorobenzene	ND	25	22.7	91	22.0	88	3	74-111/11
75-00-3	Chloroethane	ND	25	25.7	103	25.1	100	2	75-135/15
67-66-3	Chloroform	ND	25	23.0	92	22.4	90	3	75-117/12
95-49-8	o-Chlorotoluene	ND	25	65.6	262* b	55.8	223* b	16* c	74-113/12
106-43-4	p-Chlorotoluene	ND	25	16.1	64* d	16.1	64* d	0	72-114/12
75-15-0	Carbon disulfide	ND	25	24.0	96	22.8	91	5	57-126/13
56-23-5	Carbon tetrachloride	ND	25	24.4	98	23.5	94	4	75-125/12
75-34-3	1,1-Dichloroethane	ND	25	23.8	95	23.0	92	3	76-121/13
75-35-4	1,1-Dichloroethylene	ND	25	24.7	99	24.6	98	0	71-128/19
563-58-6	1,1-Dichloropropene	ND	25	24.4	98	23.4	94	4	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	26.6	106	27.7	111	4	55-121/33
106-93-4	1,2-Dibromoethane	49.3	25	71.0	87	71.3	88	0	69-106/13
107-06-2	1,2-Dichloroethane	ND	25	185	740* b	185	740* b	0	70-111/14
78-87-5	1,2-Dichloropropane	ND	25	24.1	96	23.7	95	2	71-113/12
142-28-9	1,3-Dichloropropane	ND	25	21.4	86	21.5	86	0	69-106/12
594-20-7	2,2-Dichloropropane	ND	25	15.5	62* d	14.5	58* d	7	68-130/14
124-48-1	Dibromochloromethane	ND	25	21.8	87	21.9	88	0	69-104/12
75-71-8	Dichlorodifluoromethane	ND	25	26.7	107	25.4	102	5	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND	25	22.7	91	22.0	88	3	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	25	21.1	84	20.9	84	1	71-111/12
541-73-1	m-Dichlorobenzene	ND	25	21.9	88	21.8	87	0	74-110/12
95-50-1	o-Dichlorobenzene	ND	25	21.7	87	21.8	87	0	72-108/12
106-46-7	p-Dichlorobenzene	ND	25	21.8	87	21.6	86	1	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND	25	23.0	92	22.5	90	2	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND	25	20.6	82	20.5	82	0	75-111/12
100-41-4	Ethylbenzene	1270 c	25	967	32* a	959	0* a	1	75-112/12
591-78-6	2-Hexanone	51.8	125	163	89	169	94	4	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D	50	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Compound	T80288-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND	25	20.4	82	19.8	79	3		72-123/17
98-82-8	Isopropylbenzene	68.5	25	93.8	101	89.9	86	4		75-123/12
99-87-6	p-Isopropyltoluene	2.7	25	24.9	89	24.2	86	3		76-116/12
108-10-1	4-Methyl-2-pentanone	21.8	125	123	81	129	86	5		63-115/21
74-83-9	Methyl bromide	ND	25	24.3	97	23.7	95	3		59-132/15
74-87-3	Methyl chloride	ND	25	24.3	97	24.4	98	0		56-150/17
74-95-3	Methylene bromide	ND	25	22.5	90	22.9	92	2		68-114/13
75-09-2	Methylene chloride	ND	25	20.8	83	20.6	82	1		70-113/13
78-93-3	Methyl ethyl ketone	66.5	125	161	76	180	91	11		62-117/21
1634-04-4	Methyl Tert Butyl Ether	0.73	J	25	21.9	85	87	2		65-113/13
91-20-3	Naphthalene	498 ^c	25	418	104	431	156* ^a	3		53-127/34
103-65-1	n-Propylbenzene	158	25	179	84	173	60* ^a	3		74-115/12
100-42-5	Styrene	ND	25	46.6	186* ^b	46.0	184* ^b	1		76-110/11
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	21.1	84	20.7	83	2		72-108/11
71-55-6	1,1,1-Trichloroethane	ND	25	23.6	94	22.6	90	4		76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	24.3	97	24.7	99	2		67-110/20
79-00-5	1,1,2-Trichloroethane	0.71	J	25	22.4	87	86	1		69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND	25	20.8	83	21.3	85	2		51-128/31
96-18-4	1,2,3-Trichloropropane	ND	25	22.5	90	23.1	92	3		55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND	25	20.6	82	21.1	84	2		63-114/21
95-63-6	1,2,4-Trimethylbenzene	659 ^c	25	609	40* ^a	597	8* ^a	2		73-111/13
108-67-8	1,3,5-Trimethylbenzene	172	25	194	88	182	40* ^a	6		74-115/12
127-18-4	Tetrachloroethylene	ND	25	23.1	92	22.2	89	4		77-120/13
108-88-3	Toluene	ND	25	2000	80	1990	40* ^a	1		77-114/12
79-01-6	Trichloroethylene	ND	25	22.5	90	22.4	90	0		74-117/12
75-69-4	Trichlorofluoromethane	ND	25	26.9	108	25.4	102	6		64-132/18
75-01-4	Vinyl chloride	ND	25	23.5	94	22.4	90	5		64-121/19
1330-20-7	Xylene (total)	2990 ^c	75	2300	13* ^a	2280	13* ^a	1		75-111/12
	m,p-Xylene	1640 ^c	50	1240	20* ^a	1220	20* ^a	2		75-112/12
95-47-6	o-Xylene	1350 ^c	25	1060	0* ^a	1050	40* ^a	1		74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T80288-1	T80288-1	Limits
1868-53-7	Dibromofluoromethane	100%	102%	102%	100%	79-122%
17060-07-0	1,2-Dichloroethane-D4	93%	94%	95%	95%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D	50	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80268-2

CAS No.	Surrogate Recoveries	MS	MSD	T80288-1	T80288-1	Limits
2037-26-5	Toluene-D8	98%	99%	98%	98%	87-119%
460-00-4	4-Bromofluorobenzene	100%	100%	101%	99%	80-133%

- (a) Outside control limits due to high level in sample relative to spike amount. AZ: M3
(b) AZ: M1
(c) AZ: R9
(d) AZ: M2
(e) Result is from Run #2.



Gulf Coast

ACCUTEST®

LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-MB	P18917.D	1	07/06/11	SC	07/05/11	OP19165	EP905

The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	5.0	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	15	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.4	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.83	ug/l	
	3&4-Methylphenol	ND	5.0	1.6	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	6.7	ug/l	
87-86-5	Pentachlorophenol	ND	25	13	ug/l	
108-95-2	Phenol	ND	5.0	0.75	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.1	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.6	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
62-53-3	Aniline	ND	5.0	4.6	ug/l	
120-12-7	Anthracene	ND	5.0	1.1	ug/l	
92-87-5	Benzidine	ND	25	6.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.87	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.7	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.4	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.6	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.3	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.4	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	4.3	ug/l	
86-74-8	Carbazole	ND	5.0	1.5	ug/l	
218-01-9	Chrysene	ND	5.0	0.98	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.3	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	1.3	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.3	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-MB.	P18917.D	1	07/06/11	SC	07/05/11	OP19165	EP905

The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.3	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.4	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.3	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	1.4	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.3	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	3.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.3	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.8	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.97	ug/l	
86-73-7	Fluorene	ND	5.0	1.3	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	5.2	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.8	ug/l	
78-59-1	Isophorone	ND	5.0	1.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.4	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	3.3	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	2.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.7	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.97	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.4	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.7	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.97	ug/l	
129-00-0	Pyrene	ND	5.0	1.7	ug/l	
110-86-1	Pyridine	ND	5.0	0.99	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	

Method Blank Summary

Page 3 of 3

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-MB	P18917.D	1	07/06/11	SC	07/05/11	OP19165	EP905

The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	31% 10-66%
4165-62-2	Phenol-d5	24% 10-53%
118-79-6	2,4,6-Tribromophenol	66% 32-128%
4165-60-0	Nitrobenzene-d5	63% 29-115%
321-60-8	2-Fluorobiphenyl	60% 34-113%
1718-51-0	Terphenyl-d14	76% 12-145%

Blank Spike Summary

Page 1 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-BS	P18918.D	1	07/06/11	SC	07/05/11	OP19165	EP905

The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	24.8	50	10-68
95-57-8	2-Chlorophenol	50	28.8	58	39-93
59-50-7	4-Chloro-3-methyl phenol	50	34.9	70	43-109
120-83-2	2,4-Dichlorophenol	50	33.3	67	42-106
105-67-9	2,4-Dimethylphenol	50	21.3	43	27-87
51-28-5	2,4-Dinitrophenol	50	38.3	77	43-107
534-52-1	4,6-Dinitro-o-cresol	50	42.7	85	47-112
95-48-7	2-Methylphenol	50	25.4	51	25-84
	3&4-Methylphenol	100	49.3	49	25-77
88-75-5	2-Nitrophenol	50	33.2	66	38-96
100-02-7	4-Nitrophenol	50	26.0	52	13-70
87-86-5	Pentachlorophenol	50	36.8	74	46-153
108-95-2	Phenol	50	15.8	32	10-53
95-95-4	2,4,5-Trichlorophenol	50	36.8	74	40-101
88-06-2	2,4,6-Trichlorophenol	50	34.7	69	41-102
83-32-9	Acenaphthene	50	32.6	65	41-110
208-96-8	Acenaphthylene	50	34.2	68	49-113
62-53-3	Aniline	50	18.2	36	24-132
120-12-7	Anthracene	50	33.6	67	59-105
56-55-3	Benzo(a)anthracene	50	36.8	74	64-112
50-32-8	Benzo(a)pyrene	50	34.6	69	62-116
205-99-2	Benzo(b)fluoranthene	50	35.6	71	62-114
191-24-2	Benzo(g,h,i)perylene	50	47.9	96	55-124
207-08-9	Benzo(k)fluoranthene	50	40.2	80	62-119
101-55-3	4-Bromophenyl phenyl ether	50	33.7	67	56-99
85-68-7	Butyl benzyl phthalate	50	39.9	80	52-125
100-51-6	Benzyl Alcohol	50	27.1	54	28-83
91-58-7	2-Chloronaphthalene	50	24.5	49	42-97
106-47-8	4-Chloroaniline	50	23.6	47	37-128
86-74-8	Carbazole	50	35.1	70	59-142
218-01-9	Chrysene	50	37.7	75	67-112
111-91-1	bis(2-Chloroethoxy)methane	50	31.7	63	38-96
111-44-4	bis(2-Chloroethyl)ether	50	27.8	56	37-91
108-60-1	bis(2-Chloroisopropyl)ether	50	30.5	61	36-102
7005-72-3	4-Chlorophenyl phenyl ether	50	35.2	70	48-101
95-50-1	1,2-Dichlorobenzene	50	27.0	54	33-86

Blank Spike Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-BS	P18918.D	1	07/06/11	SC	07/05/11	OP19165	EP905

The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
122-66-7	1,2-Diphenylhydrazine	50	34.6	69	39-118
541-73-1	1,3-Dichlorobenzene	50	25.2	50	21-88
106-46-7	1,4-Dichlorobenzene	50	25.7	51	31-86
121-14-2	2,4-Dinitrotoluene	50	39.5	79	55-112
606-20-2	2,6-Dinitrotoluene	50	35.0	70	57-105
91-94-1	3,3'-Dichlorobenzidine	50	27.7	55	50-142
53-70-3	Dibenzo(a,h)anthracene	50	46.5	93	55-123
132-64-9	Dibenzofuran	50	35.1	70	45-99
84-74-2	Di-n-butyl phthalate	50	36.7	73	64-114
117-84-0	Di-n-octyl phthalate	50	39.8	80	55-118
84-66-2	Diethyl phthalate	50	37.6	75	52-113
131-11-3	Dimethyl phthalate	50	34.7	69	38-112
117-81-7	bis(2-Ethylhexyl)phthalate	50	39.2	78	56-131
206-44-0	Fluoranthene	50	38.1	76	62-116
86-73-7	Fluorene	50	35.1	70	47-99
118-74-1	Hexachlorobenzene	50	33.6	67	62-102
87-68-3	Hexachlorobutadiene	50	26.0	52	37-91
77-47-4	Hexachlorocyclopentadiene	50	12.1	24	23-102
67-72-1	Hexachloroethane	50	24.9	50	33-86
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.1	92	52-126
78-59-1	Isophorone	50	32.1	64	42-105
90-12-0	1-Methylnaphthalene	50	30.6	61	35-89
91-57-6	2-Methylnaphthalene	50	30.3	61	36-91
88-74-4	2-Nitroaniline	50	29.5	59	49-109
99-09-2	3-Nitroaniline	50	33.0	66	46-139
100-01-6	4-Nitroaniline	50	36.9	74	73-174
91-20-3	Naphthalene	50	28.8	58	37-89
98-95-3	Nitrobenzene	50	31.7	63	42-97
62-75-9	n-Nitrosodimethylamine	50	19.2	38	16-63
621-64-7	N-Nitroso-di-n-propylamine	50	33.8	68	42-102
86-30-6	N-Nitrosodiphenylamine	50	34.5	69	64-119
85-01-8	Phenanthrene	50	35.7	71	59-103
129-00-0	Pyrene	50	39.9	80	58-110
110-86-1	Pyridine	50	14.3	29	10-63
120-82-1	1,2,4-Trichlorobenzene	50	25.9	52	37-88

Blank Spike Summary

Page 3 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-BS	P18918.D	1	07/06/11	SC	07/05/11	OP19165	EP905

The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	39%	10-66%
4165-62-2	Phenol-d5	31%	10-53%
118-79-6	2,4,6-Tribromophenol	89%	32-128%
4165-60-0	Nitrobenzene-d5	70%	29-115%
321-60-8	2-Fluorobiphenyl	62%	34-113%
1718-51-0	Terphenyl-d14	88%	12-145%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-MS	P18928.D	1	07/06/11	SC	07/05/11	OP19165	EP905
OP19165-MSD	P18929.D	1	07/06/11	SC	07/05/11	OP19165	EP905
T80278-6	P18927.D	1	07/06/11	SC	07/05/11	OP19165	EP905

The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Compound	T80278-6 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND	50	21.2	42	24.0	48	12	10-68/27
95-57-8	2-Chlorophenol	ND	50	9.4	19*	10.8	22*	14	39-93/28
59-50-7	4-Chloro-3-methyl phenol	ND	50	13.5	27*	15.4	31*	13	43-109/28
120-83-2	2,4-Dichlorophenol	ND	50	11.6	23*	13.2	26*	13	42-106/25
105-67-9	2,4-Dimethylphenol	ND	50	2.4	5*	2.8	6*	15	27-87/26
51-28-5	2,4-Dinitrophenol	ND	50	17.2	34*	19.7	39*	14	43-107/44
534-52-1	4,6-Dinitro-o-cresol	ND	50	17.8	36*	19.5	39*	9	47-112/24
95-48-7	2-Methylphenol	ND	50	7.9	16*	9.3	19*	16	25-84/31
	3&4-Methylphenol	ND	100	18.5	19*	21.6	22*	15	25-77/25
88-75-5	2-Nitrophenol	ND	50	11.4	23*	12.6	25*	10	38-96/26
100-02-7	4-Nitrophenol	ND	50	17.5	35	19.2	38	9	13-70/25
87-86-5	Pentachlorophenol	ND	50	20.0	40*	22.9	46	14	46-153/18
108-95-2	Phenol	ND	50	7.3	15	8.5	17	15	10-53/35
95-95-4	2,4,5-Trichlorophenol	ND	50	15.2	30*	16.9	34*	11	40-101/22
88-06-2	2,4,6-Trichlorophenol	ND	50	13.7	27*	15.1	30*	10	41-102/22
83-32-9	Acenaphthene	ND	50	12.5	25*	13.2	26*	5	41-110/21
208-96-8	Acenaphthylene	ND	50	12.2	24*	13.1	26*	7	49-113/23
62-53-3	Aniline	ND	50	8.1	16*	9.1	18*	12	24-132/44
120-12-7	Anthracene	ND	50	14.5	29*	15.3	31*	5	59-105/18
56-55-3	Benzo(a)anthracene	ND	50	15.2	30*	16.1	32*	6	64-112/20
50-32-8	Benzo(a)pyrene	ND	50	13.1	26*	14.0	28*	7	62-116/23
205-99-2	Benzo(b)fluoranthene	ND	50	14.4	29*	15.6	31*	8	62-114/22
191-24-2	Benzo(g,h,i)perylene	ND	50	15.5	31*	15.5	31*	0	55-124/36
207-08-9	Benzo(k)fluoranthene	ND	50	15.7	31*	17.3	35*	10	62-119/30
101-55-3	4-Bromophenyl phenyl ether	ND	50	13.5	27*	14.3	29*	6	56-99/20
85-68-7	Butyl benzyl phthalate	ND	50	15.2	30*	16.5	33*	8	52-125/25
100-51-6	Benzyl Alcohol	ND	50	8.8	18*	10.5	21*	18	28-83/32
91-58-7	2-Chloronaphthalene	ND	50	9.1	18*	9.7	19*	6	42-97/27
106-47-8	4-Chloroaniline	ND	50	3.4	7*	3.7	7*	8	37-128/29
86-74-8	Carbazole	ND	50	14.2	28*	15.1	30*	6	59-142/19
218-01-9	Chrysene	ND	50	15.5	31*	16.0	32*	3	67-112/19
111-91-1	bis(2-Chloroethoxy)methane	ND	50	10.5	21*	11.5	23*	9	38-96/30
111-44-4	bis(2-Chloroethyl)ether	ND	50	7.9	16*	8.9	18*	12	37-91/33
108-60-1	bis(2-Chloroisopropyl)ether	ND	50	9.7	19*	11.0	22*	13	36-102/32
7005-72-3	4-Chlorophenyl phenyl ether	ND	50	13.6	27*	14.7	29*	8	48-101/21
95-50-1	1,2-Dichlorobenzene	ND	50	9.5	19*	10.6	21*	11	33-86/29

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80268
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-MS	P18928.D	1	07/06/11	SC	07/05/11	OP19165	EP905
OP19165-MSD	P18929.D	1	07/06/11	SC	07/05/11	OP19165	EP905
T80278-6	P18927.D	1	07/06/11	SC	07/05/11	OP19165	EP905

The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Compound	T80278-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
122-66-7	1,2-Diphenylhydrazine	ND		50	13.5	27*	14.0	28*	4	30-122/34
541-73-1	1,3-Dichlorobenzene	ND		50	8.9	18*	9.9	20*	11	32-88/32
106-46-7	1,4-Dichlorobenzene	ND		50	9.1	18*	10.1	20*	10	31-86/36
121-14-2	2,4-Dinitrotoluene	ND		50	15.9	32*	17.6	35*	10	55-112/23
606-20-2	2,6-Dinitrotoluene	ND		50	13.7	27*	15.1	30*	10	57-105/23
91-94-1	3,3'-Dichlorobenzidine	ND		50	ND	0*	ND	0*	nc	50-142/21
53-70-3	Dibenzo(a,h)anthracene	ND		50	15.9	32*	16.1	32*	1	55-123/37
132-64-9	Dibenzofuran	ND		50	13.5	27*	14.5	29*	7	45-99/20
84-74-2	Di-n-butyl phthalate	ND		50	15.1	30*	15.6	31*	3	64-114/16
117-84-0	Di-n-octyl phthalate	ND		50	16.6	33*	19.5	39*	16	55-118/25
84-66-2	Diethyl phthalate	ND		50	14.2	28*	15.4	31*	8	52-113/20
131-11-3	Dimethyl phthalate	ND		50	11.1	22*	12.2	24*	9	38-112/19
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	17.3	35*	18.4	37*	6	56-131/19
206-44-0	Fluoranthene	ND		50	16.0	32*	16.9	34*	5	62-116/24
86-73-7	Fluorene	ND		50	13.8	28*	14.8	30*	7	47-99/22
118-74-1	Hexachlorobenzene	ND		50	13.6	27*	14.3	29*	5	62-102/21
87-68-3	Hexachlorobutadiene	ND		50	9.8	20*	10.5	21*	7	37-91/28
77-47-4	Hexachlorocyclopentadiene	ND		50	10.2	20*	11.2	22*	9	23-102/34
67-72-1	Hexachloroethane	ND		50	8.9	18*	9.8	20*	10	33-86/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	15.8	32*	15.9	32*	1	52-126/30
78-59-1	Isophorone	ND		50	10.8	22*	11.9	24*	10	42-105/28
90-12-0	1-Methylnaphthalene	ND		50	11.4	23*	12.5	25*	9	35-89/25
91-57-6	2-Methylnaphthalene	ND		50	11.3	23*	12.4	25*	9	36-91/29
88-74-4	2-Nitroaniline	ND		50	1.8	4*	1.9	4*	5	49-109/22
99-09-2	3-Nitroaniline	ND		50	ND	0*	ND	0*	nc	46-139/23
100-01-6	4-Nitroaniline	ND		50	ND	0*	ND	0*	nc	73-174/24
91-20-3	Naphthalene	ND		50	10.4	21*	11.2	22*	7	37-89/24
98-95-3	Nitrobenzene	ND		50	11.6	23*	12.5	25*	7	42-97/26
62-75-9	n-Nitrosodimethylamine	ND		50	5.9	12*	6.6	13*	11	16-63/28
621-64-7	N-Nitroso-di-n-propylamine	ND		50	10.7	21*	12.6	25*	16	42-102/27
86-30-6	N-Nitrosodiphenylamine	ND		50	11.0	22*	11.7	23*	6	64-119/27
85-01-8	Phenanthrene	ND		50	14.9	30*	15.6	31*	5	59-103/19
129-00-0	Pyrene	ND		50	16.4	33*	17.8	36*	8	58-110/25
110-86-1	Pyridine	ND		50	ND	0*	ND	0*	nc	10-63/48
120-82-1	1,2,4-Trichlorobenzene	ND		50	9.6	19*	10.3	21*	7	37-88/23

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80268

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19165-MS	P18928.D	1	07/06/11	SC	07/05/11	OP19165	EP905
OP19165-MSD	P18929.D	1	07/06/11	SC	07/05/11	OP19165	EP905
T80278-6	P18927.D	1	07/06/11	SC	07/05/11	OP19165	EP905

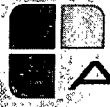
The QC reported here applies to the following samples:

Method: SW846 8270C

T80268-1, T80268-2, T80268-3, T80268-4

CAS No.	Surrogate Recoveries	MS	MSD	T80278-6	Limits
367-12-4	2-Fluorophenol	24%	21%	21%	10-66%
4165-62-2	Phenol-d5	23%	21%	21%	10-53%
118-79-6	2,4,6-Tribromophenol	51%	46%	46%	32-128%
4165-60-0	Nitrobenzene-d5	32%	28%*	30%	29-115%
321-60-8	2-Fluorobiphenyl	29%*	25%*	25%* ^a	34-113%
1718-51-0	Terphenyl-d14	46%	43%	40%	12-145%

(a) Outside control limits due to matrix interference. Confirmed by associated ms/msd.



Gulf Coast

ACCUTEST

LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T80268
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15157
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

07/04/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	8.3	12		
Antimony	5.0	1	1		
Arsenic	5.0	1.7	1	0.0	<5.0
Barium	200	.97	3.4	-0.10	<200
Beryllium	5.0	.056	.16		
Boron	100	1.4	7.8		
Cadmium	4.0	.11	.09	0.010	<4.0
Calcium	5000	7.4	25	14.0	<5000
Chromium	10	.23	.27	0.36	<10
Cobalt	50	.15	.22		
Copper	25	1.1	5.9		
Iron	100	1.1	23	-3.1	<100
Lead	3.0	1	1.8	0.19	<3.0
Lithium	300	2	2		
Magnesium	5000	7.7	7.9	-18	<5000
Manganese	15	.054	1.9	0.52	<15
Molybdenum	10	.39	.2		
Nickel	40	.69	1.4		
Potassium	5000	39	45		
Selenium	5.0	1.5	.98	1.7	<5.0
Silver	10	1.2	.24	-0.33	<10
Sodium	5000	9.2	100	472	<5000
Strontium	10	.061	.4		
Thallium	10	.67	1.2		
Tin	20	.69	2.8		
Titanium	20	.29	.3		
Vanadium	50	.3	.3		
Zinc	20	.51	3.5		

Associated samples MP15157: T80268-1F, T80268-2F, T80268-3F, T80268-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T80268
 Account: CONOCO - Conoco Phillips
 Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15157
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date:

07/04/11

07/04/11

Metal	T80307-2F Original DUP		RPD	QC Limits	T80307-2F Original MS		Spikelot MPTW4	% Rec	QC Limits
Aluminum	anr								
Antimony	anr								
Arsenic	13.8	10.5	27.2 (a)	0-20	13.8	471	400	114.3	80-120
Barium	839	819	2.4	0-20	839	1260	400	105.3	80-120
Beryllium	anr								
Boron	anr								
Cadmium	0.0	0.0	NC	0-20	0.0	465	400	116.3	80-120
Calcium	523000	513000	1.9	0-20	523000	570000	50000	94.0	80-120
Chromium	3.5	3.3	5.9	0-20	3.5	424	400	105.1	80-120
Cobalt	anr								
Copper	anr								
Iron	1120	285	118.9 (b)	0-20	1120	49300	50000	96.4	80-120
Lead	2.2	1.6	31.6 (a)	0-20	2.2	400	400	99.5	80-120
Lithium									
Magnesium	378000	370000	2.1	0-20	378000	429000	50000	102.0	80-120
Manganese	2960	2890	2.4	0-20	2960	3270	400	77.5 (c)	80-120
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	2.1	3.8	57.6 (a)	0-20	2.1	470	400	117.0	80-120
Silver	0.0	0.0	NC	0-20	0.0	480	400	120.0	80-120
Sodium	1920000	2590000	0.8	0-20	1920000	2820000	50000	500.0 (c)	80-120
Strontium									
Thallium	anr								
Tin									
Titanium									
Vanadium	anr								
Zinc	anr								

Associated samples MP15157: T80268-1F, T80268-2F, T80268-3F, T80268-4F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

(b) High RPD due to possible matrix interference.

(c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T80268
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15157
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

10/04/11

Metal	T80307-2F Original MSD	Spikelot MPTW4	% Rec	MSD RPD	QC Limit
Aluminum	anr				
Antimony	anr				
Arsenic	13.8	459	400	111.3	20
Barium	839	1200	400	90.3	20
Beryllium	anr				
Boron	anr				
Cadmium	0.0	454	400	113.5	20
Calcium	523000	546000	50000	46.0 (a)	20
Chromium	3.5	409	400	101.4	20
Cobalt	anr				
Copper	anr				
Iron	1120	47600	50000	93.0	20
Lead	2.2	390	400	97.0	20
Lithium					
Magnesium	378000	413000	50000	70.0 (a)	20
Manganese	2960	3150	400	47.5 (a)	20
Molybdenum	anr				
Nickel	anr				
Potassium	anr				
Selenium	2.1	458	400	114.0	20
Silver	0.0	468	400	117.0	20
Sodium	1920000	2530000	50000	-80.0(a)	20
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP15157: T80268-1F, T80268-2F, T80268-3F, T80268-4F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T80268
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15157
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/04/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	411	400	102.8	80-120
Barium	413	400	103.3	80-120
Beryllium	anr			
Boron	anr			
Cadmium	414	400	103.5	80-120
Calcium	51600	50000	103.2	80-120
Chromium	431	400	107.8	80-120
Cobalt	anr			
Copper	anr			
Iron	51000	50000	102.0	80-120
Lead	388	400	97.0	80-120
Lithium				
Magnesium	49900	50000	99.8	80-120
Manganese	415	400	103.8	80-120
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	424	400	106.0	80-120
Silver	399	400	99.8	80-120
Sodium	50500	50000	101.0	80-120
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP15157: T80268-1F, T80268-2F, T80268-3F, T80268-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: T80268
 Account: CONOCO - Conoco Phillips
 Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15157
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 07/04/15

Metal	T80307-2F Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony	anr			
Arsenic	13.8	10.8	21.7 (a)	0-10
Barium	839	808	3.7	0-10
Beryllium	anr			
Boron	anr			
Cadmium	0.00	0.860		0-10
Calcium	523000	531000	1.4	0-10
Chromium	3.51	6.55	86.6 (a)	0-10
Cobalt	anr			
Copper	anr			
Iron	1120	1110	0.5	0-10
Lead	2.23	0.00	100.0 (a)	0-10
Lithium				
Magnesium	378000	366000	3.1	0-10
Manganese	2960	2940	0.9	0-10
Molybdenum	anr			
Nickel	anr			
Potassium	anr			
Selenium	2.12	8.86	317.9 (a)	0-10
Silver	0.00	0.00	NC	0-10
Sodium	1920000	2650000	3.3	0-10
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP15157: T80268-1F, T80268-2F, T80268-3F, T80268-4F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



Gulf Coast

ACCUTEST

LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80268
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO ₃	GN32859	5.0	3.0	mg/l	2500	2480	99.0	80-120%
Chemical Oxygen Demand	GP13853/GN32897	20	0.0	mg/l	60	58.3	97.2	90-110%
Chloride	GP13731/GN32659	0.50	0.0	mg/l	10	9.67	96.7	90-110%
Chloride	GP13801/GN32793	0.50	0.0	mg/l	10	9.67	96.7	90-110%
Nitrogen, Nitrate	GP13732/GN32659	0.50	0.0	mg/l	10	9.21	92.1	90-110%
Nitrogen, Nitrite	GP13732/GN32659	0.50	0.0	mg/l	10	9.65	96.5	90-110%
Solids, Total Dissolved	GN32711	10	0.0	mg/l	500	488	97.6	80-120%

Associated Samples:

Batch GN32711: T80268-1, T80268-2, T80268-3, T80268-4
Batch GN32859: T80268-1, T80268-2, T80268-3, T80268-4
Batch GP13731: T80268-1, T80268-3, T80268-4
Batch GP13732: T80268-2
Batch GP13801: T80268-2
Batch GP13853: T80268-1, T80268-2, T80268-3, T80268-4
(*) Outside of QC limits

7.1
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80268
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN32859	T79984-1	mg/l	320	99.0	0.0	0-10%
Chemical Oxygen Demand	GP13853/GN32897	T80117-3	mg/l	32.3	28.3	13.2	0-20%
Chloride	GP13731/GN32659	T80234-4	mg/l	636	636	0.0	0-20%
Chloride	GP13801/GN32793	T79882-5	mg/l	132	132	0.0	0-20%
Nitrogen, Nitrate	GP13732/GN32659	T80255-6	mg/l	0.0	0.0	0.0	0-20%
Nitrogen, Nitrite	GP13732/GN32659	T80255-6	mg/l	0.0	0.0	0.0	0-20%
Solids, Total Dissolved	GN32711	T80268-4	mg/l	1250	1260	0.8	0-5%
pH	GN32663	T80266-1	su	8.12	8.12	0.0	0-6.8%

Associated Samples:

Batch GN32663: T80268-1, T80268-2, T80268-3, T80268-4

Batch GN32711: T80268-1, T80268-2, T80268-3, T80268-4

Batch GN32859: T80268-1, T80268-2, T80268-3, T80268-4

Batch GP13731: T80268-1, T80268-3, T80268-4

Batch GP13732: T80268-2

Batch GP13801: T80268-2

Batch GP13853: T80268-1, T80268-2, T80268-3, T80268-4

(*) Outside of QC limits

7.2
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80268
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN32859	T79984-1	mg/l	320	25	123	96.0	79-122%
Chemical Oxygen Demand	GP13853/GN32897	T80117-3	mg/l	32.3	60	90.4	96.8	90-110%
Chloride	GP13731/GN32659	T80234-4	mg/l	636	1000	1620	98.4	80-120%
Chloride	GP13801/GN32793	T79882-5	mg/l	132	200	305	86.5	80-120%
Nitrogen, Nitrate	GP13732/GN32659	T80255-6	mg/l	0.0	10	8.0	80.0	80-120%
Nitrogen, Nitrite	GP13732/GN32659	T80255-6	mg/l	0.0	10	9.3	93.0	80-120%

Associated Samples:

Batch GN32859: T80268-1, T80268-2, T80268-3, T80268-4

Batch GP13731: T80268-1, T80268-3, T80268-4

Batch GP13732: T80268-2

Batch GP13801: T80268-2

Batch GP13853: T80268-1, T80268-2, T80268-3, T80268-4

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.3
7



07/14/11

Technical Report for

Conoco Phillips

CRA: Wingate Fractionating Plant

COP Wingate

Accutest Job Number: T80323

Sampling Date: 07/01/11

Report to:

Conestoga Rovers & Associates
6121 Indian School Rd. NE, Ste. 200
Albuquerque, NM 87110
keblanchard@croworld.com; christine.mathews@tetrattech.com;
cassandre.brown@tetrattech.com
ATTN: Kelly Blanchard

Total number of pages in report: 88



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Erica Cardenas 713-271-4700

Certifications: TX (T104704220-10-3) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: T80323-1: GW-075006-070111-CFM-011	5
2.2: T80323-1F: GW-075006-070111-CFM-011 (DISSOLVED)	12
2.3: T80323-2: GW-075006-070111-CFM-012	13
2.4: T80323-2F: GW-075006-070111-CFM-012 (DISSOLVED)	20
2.5: T80323-3: GW-075006-070111-CFM-013	21
2.6: T80323-4: GW-075006-070111-CFM-014	22
2.7: T80323-4F: GW-075006-070111-CFM-014 (DISSOLVED)	29
2.8: T80323-5: TB-070111-001	30
Section 3: Misc. Forms	33
3.1: Chain of Custody	34
Section 4: GC/MS Volatiles - QC Data Summaries	38
4.1: Method Blank Summary	39
4.2: Blank Spike Summary	49
4.3: Matrix Spike/Matrix Spike Duplicate Summary	59
Section 5: GC/MS Semi-volatiles - QC Data Summaries	69
5.1: Method Blank Summary	70
5.2: Blank Spike Summary	73
5.3: Matrix Spike/Matrix Spike Duplicate Summary	76
Section 6: Metals Analysis - QC Data Summaries	79
6.1: Prep QC MP15190: As,Ba,Cd,Ca,Cr,Fe,Pb,Mg,Mn,Se,Ag,Na	80
Section 7: General Chemistry - QC Data Summaries	85
7.1: Method Blank and Spike Results Summary	86
7.2: Duplicate Results Summary	87
7.3: Matrix Spike Results Summary	88

Sample Summary

Conoco Phillips

Job No: T80323

CRA: Wingate Fractionating Plant
Project No: COP Wingate

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
T80323-1	07/01/11	09:10	07/02/11	AQ	Ground Water	GW-075006-070111-CFM-011
T80323-1F	07/01/11	09:10	07/02/11	AQ	Groundwater Filtered	GW-075006-070111-CFM-011 (DISSOLVED)
T80323-2	07/01/11	10:05	07/02/11	AQ	Ground Water	GW-075006-070111-CFM-012
T80323-2F	07/01/11	10:05	07/02/11	AQ	Groundwater Filtered	GW-075006-070111-CFM-012 (DISSOLVED)
T80323-3	07/01/11	09:10	07/02/11	AQ	Ground Water	GW-075006-070111-CFM-013
T80323-4	07/01/11	13:55	07/02/11	AQ	Ground Water	GW-075006-070111-CFM-014
T80323-4F	07/01/11	13:55	07/02/11	AQ	Groundwater Filtered	GW-075006-070111-CFM-014 (DISSOLVED)
T80323-5	07/01/11	15:30	07/02/11	AQ	Trip Blank Water	TB-070111-001



Gulf Coast

ACCUTEST

LABORATORIES

2

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-011
 Lab Sample ID: T80323-1
 Matrix: AQ - Ground Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
 Date Received: 07/02/11
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0074173.D	20	07/12/11	DR	n/a	n/a	VX1097
Run #2	F035961.D	100	07/10/11	AK	n/a	n/a	VF4327

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	0.518	1.0	0.20	mg/l	J
71-43-2	Benzene	18.0 ^a	0.10	0.025	mg/l	
108-86-1	Bromobenzene	ND	0.020	0.0054	mg/l	
74-97-5	Bromochloromethane	ND	0.020	0.0084	mg/l	
75-27-4	Bromodichloromethane	ND	0.020	0.0051	mg/l	
75-25-2	Bromoform	ND	0.020	0.0070	mg/l	
104-51-8	n-Butylbenzene	ND	0.020	0.0060	mg/l	
135-98-8	sec-Butylbenzene	ND	0.020	0.0067	mg/l	
98-06-6	tert-Butylbenzene	ND	0.020	0.0064	mg/l	
108-90-7	Chlorobenzene	ND	0.020	0.0043	mg/l	
75-00-3	Chloroethane	ND	0.020	0.0089	mg/l	
67-66-3	Chloroform	ND	0.020	0.0040	mg/l	
95-49-8	o-Chlorotoluene	ND	0.020	0.0056	mg/l	
106-43-4	p-Chlorotoluene	ND	0.020	0.0059	mg/l	
75-15-0	Carbon disulfide	ND	0.020	0.0072	mg/l	
56-23-5	Carbon tetrachloride	ND	0.020	0.0072	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.020	0.0057	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.020	0.0080	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.020	0.0065	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.040	0.017	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.020	0.0053	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.020	0.0039	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.020	0.0050	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.020	0.0042	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.020	0.0073	mg/l	
124-48-1	Dibromochloromethane	ND	0.020	0.0057	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.040	0.018	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.020	0.0047	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.020	0.0041	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.020	0.0051	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.020	0.0056	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.020	0.0057	mg/l	

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-011
Lab Sample ID: T80323-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11

Date Received: 07/02/11

Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.020	0.0060	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.020	0.0042	mg/l	
100-41-4	Ethylbenzene	0.0827	0.020	0.0050	mg/l	
591-78-6	2-Hexanone	ND	0.20	0.049	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.020	0.013	mg/l	
98-82-8	Isopropylbenzene	ND	0.020	0.0054	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.020	0.0067	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.20	0.037	mg/l	
74-83-9	Methyl bromide	ND	0.020	0.0062	mg/l	
74-87-3	Methyl chloride	ND	0.020	0.0054	mg/l	
74-95-3	Methylene bromide	ND	0.020	0.0060	mg/l	
75-09-2	Methylene chloride	ND	0.10	0.020	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.20	0.037	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.020	0.0056	mg/l	
91-20-3	Naphthalene	ND	0.10	0.020	mg/l	
103-65-1	n-Propylbenzene	ND	0.020	0.0053	mg/l	
100-42-5	Styrene	ND	0.020	0.0044	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.020	0.0048	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.020	0.0061	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.020	0.0077	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.020	0.0073	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.020	0.010	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.020	0.0092	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.020	0.0065	mg/l	
95-63-6	1,2,4-Trimethylbenzene	0.0195	0.020	0.0047	mg/l	J
108-67-8	1,3,5-Trimethylbenzene	0.0062	0.020	0.0054	mg/l	J
127-18-4	Tetrachloroethylene	ND	0.020	0.0066	mg/l	
108-88-3	Toluene	0.425	0.020	0.0051	mg/l	
79-01-6	Trichloroethylene	ND	0.020	0.0071	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.020	0.0082	mg/l	
75-01-4	Vinyl chloride	ND	0.020	0.0079	mg/l	
1330-20-7	Xylene (total)	0.543	0.060	0.014	mg/l	
	m,p-Xylene	0.420	0.040	0.0096	mg/l	
95-47-6	o-Xylene	0.124	0.020	0.0046	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	101%	79-122%
17060-07-0	1,2-Dichloroethane-D4	96%	95%	75-121%
2037-26-5	Toluene-D8	99%	104%	87-119%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID:	GW-075006-070111-CFM-011	Date Sampled:	07/01/11
Lab Sample ID:	T80323-1	Date Received:	07/02/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%	121%	80-133%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 3

Client Sample ID:	GW-075006-070111-CFM-011	Date Sampled:	07/01/11
Lab Sample ID:	T80323-1	Date Received:	07/02/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W6446.D	1	07/08/11	SG	07/07/11	OP19216	EW324
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.010	0.0051	mg/l	
95-57-8	2-Chlorophenol	ND	0.0051	0.0012	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0051	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0051	0.0023	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0051	0.0013	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.015	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.010	0.0014	mg/l	
95-48-7	2-Methylphenol	ND	0.0051	0.00085	mg/l	
	3&4-Methylphenol	ND	0.0051	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0051	0.0020	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.0068	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.013	mg/l	
108-95-2	Phenol	0.0042	0.0051	0.00077	mg/l	J
95-95-4	2,4,5-Trichlorophenol	ND	0.0051	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0051	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0051	0.0016	mg/l	
208-96-8	Acenaphthylene	ND	0.0051	0.0012	mg/l	
62-53-3	Aniline	ND	0.0051	0.0047	mg/l	
120-12-7	Anthracene	ND	0.0051	0.0011	mg/l	
92-87-5	Benzidine	ND	0.026	0.0061	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0051	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0051	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0051	0.00089	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0051	0.0017	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0051	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0051	0.0014	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0051	0.0017	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0051	0.0013	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0051	0.0014	mg/l	
106-47-8	4-Chloroaniline	ND	0.0051	0.0043	mg/l	
86-74-8	Carbazole	ND	0.0051	0.0015	mg/l	
218-01-9	Chrysene	ND	0.0051	0.0010	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-070111-CFM-011	Date Sampled:	07/01/11
Lab Sample ID:	T80323-1	Date Received:	07/02/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0051	0.0013	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0051	0.0013	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0051	0.0020	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0051	0.0013	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0051	0.0014	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0051	0.0015	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0051	0.0014	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.010	0.0033	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0051	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0051	0.0014	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0051	0.0010	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0051	0.0013	mg/l	
84-66-2	Diethyl phthalate	ND	0.0051	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0051	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0051	0.0018	mg/l	
206-44-0	Fluoranthene	ND	0.0051	0.00099	mg/l	
86-73-7	Fluorene	ND	0.0051	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0051	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0051	0.0011	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.010	0.0053	mg/l	
67-72-1	Hexachloroethane	ND	0.0051	0.00099	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0051	0.0018	mg/l	
78-59-1	Isophorone	ND	0.0051	0.0012	mg/l	
90-12-0	1-Methylnaphthalene	0.0014	0.0051	0.0011	mg/l	J
91-57-6	2-Methylnaphthalene	0.0022	0.0051	0.0013	mg/l	J
88-74-4	2-Nitroaniline	ND	0.0051	0.0014	mg/l	
99-09-2	3-Nitroaniline	ND	0.0051	0.0034	mg/l	
100-01-6	4-Nitroaniline	ND	0.0051	0.0024	mg/l	
91-20-3	Naphthalene	0.0037	0.0051	0.0012	mg/l	J
98-95-3	Nitrobenzene	ND	0.0051	0.0018	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0051	0.00099	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0051	0.0014	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0051	0.0017	mg/l	
85-01-8	Phenanthrene	ND	0.0051	0.00099	mg/l	
129-00-0	Pyrene	ND	0.0051	0.0017	mg/l	
110-86-1	Pyridine	ND	0.0051	0.0010	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0051	0.0013	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-070111-CFM-011	Date Sampled: 07/01/11
Lab Sample ID: T80323-1	Date Received: 07/02/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8270C SW846 3510C	
Project: CRA: Wingate Fractionating Plant	

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	29%		10-66%
4165-62-2	Phenol-d5	26%		10-53%
118-79-6	2,4,6-Tribromophenol	66%		32-128%
4165-60-0	Nitrobenzene-d5	34%		29-115%
321-60-8	2-Fluorobiphenyl	47%		34-113%
1718-51-0	Terphenyl-d14	74%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-070111-CFM-011

Lab Sample ID: T80323-1

Date Sampled: 07/01/11

Matrix: AQ - Ground Water

Date Received: 07/02/11

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	1580	50	mg/l	1	07/12/11 09:00	MC	SM 2320B
Chemical Oxygen Demand	114	20	mg/l	1	07/12/11	BF	SM 5220D
Chloride	509	50	mg/l	100	07/10/11 01:08	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	0.74	0.50	mg/l	1	07/02/11 20:19	ES	EPA 300/SW846 9056
Nitrogen, Nitrite	< 0.50	0.50	mg/l	1	07/02/11 20:19	ES	EPA 300/SW846 9056
Solids, Total Dissolved	2780	17	mg/l	1	07/06/11	BG	SM 2540C
Sulfate	15	0.50	mg/l	1	07/02/11 20:19	ES	EPA 300/SW846 9056
pH	8.78		su	1	07/08/11 15:07	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-011 (DISSOLVED)
Lab Sample ID: T80323-1F
Matrix: AQ - Groundwater Filtered
Project: CRA: Wingate Fractionating Plant
Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Barium	< 200	200	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Calcium	8180	5000	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Iron	< 100	100	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Magnesium	59400	5000	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Manganese	< 15	15	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Sodium	934000	25000	ug/l	5	07/07/11	07/11/11 NS	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA5905

(2) Instrument QC Batch: MA5911

(3) Prep QC Batch: MP15190

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-012
 Lab Sample ID: T80323-2
 Matrix: AQ - Ground Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
 Date Received: 07/02/11
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0074174.D	1	07/12/11	DR	n/a	n/a	VX1097
Run #2	G002889.D	1	07/13/11	JL	n/a	n/a	VG120

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND ^a	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-012
Lab Sample ID: T80323-2
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11

Date Received: 07/02/11

Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	88%	79-122%
17060-07-0	1,2-Dichloroethane-D4	96%	80%	75-121%
2037-26-5	Toluene-D8	99%	97%	87-119%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-070111-CFM-012	Date Sampled: 07/01/11
Lab Sample ID: T80323-2	Date Received: 07/02/11
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: CRA: Wingate Fractionating Plant	

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%	94%	80-133%

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	GW-075006-070111-CFM-012	Date Sampled:	07/01/11
Lab Sample ID:	T80323-2	Date Received:	07/02/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W6440.D	1	07/08/11	SG	07/07/11	OP19216	EW324
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.010	0.0051	mg/l	
95-57-8	2-Chlorophenol	ND	0.0052	0.0012	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0052	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0052	0.0023	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0052	0.0013	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.026	0.016	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.010	0.0014	mg/l	
95-48-7	2-Methylphenol	ND	0.0052	0.00086	mg/l	
	3&4-Methylphenol	ND	0.0052	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0052	0.0020	mg/l	
100-02-7	4-Nitrophenol	ND	0.026	0.0069	mg/l	
87-86-5	Pentachlorophenol	ND	0.026	0.014	mg/l	
108-95-2	Phenol	ND	0.0052	0.00078	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0052	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0052	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0052	0.0016	mg/l	
208-96-8	Acenaphthylene	ND	0.0052	0.0012	mg/l	
62-53-3	Aniline	ND	0.0052	0.0047	mg/l	
120-12-7	Anthracene	ND	0.0052	0.0011	mg/l	
92-87-5	Benzidine	ND	0.026	0.0062	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0052	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0052	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0052	0.00089	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0052	0.0017	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0052	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0052	0.0014	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0052	0.0017	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0052	0.0013	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0052	0.0014	mg/l	
106-47-8	4-Chloroaniline	ND	0.0052	0.0044	mg/l	
86-74-8	Carbazole	ND	0.0052	0.0015	mg/l	
218-01-9	Chrysene	ND	0.0052	0.0010	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-012
 Lab Sample ID: T80323-2
 Matrix: AQ - Ground Water
 Method: SW846 8270C SW846 3510C
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
 Date Received: 07/02/11
 Percent Solids: n/a

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0052	0.0013	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0052	0.0013	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0052	0.0020	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0052	0.0014	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0052	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0052	0.0014	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0052	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0052	0.0013	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0052	0.0015	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0052	0.0014	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.010	0.0033	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0052	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0052	0.0014	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0052	0.0011	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0052	0.0014	mg/l	
84-66-2	Diethyl phthalate	ND	0.0052	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0052	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0052	0.0018	mg/l	
206-44-0	Fluoranthene	ND	0.0052	0.0010	mg/l	
86-73-7	Fluorene	ND	0.0052	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0052	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0052	0.0011	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.010	0.0053	mg/l	
67-72-1	Hexachloroethane	ND	0.0052	0.0010	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0052	0.0019	mg/l	
78-59-1	Isophorone	ND	0.0052	0.0012	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0052	0.0011	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0052	0.0013	mg/l	
88-74-4	2-Nitroaniline	ND	0.0052	0.0015	mg/l	
99-09-2	3-Nitroaniline	ND	0.0052	0.0034	mg/l	
100-01-6	4-Nitroaniline	ND	0.0052	0.0024	mg/l	
91-20-3	Naphthalene	ND	0.0052	0.0012	mg/l	
98-95-3	Nitrobenzene	ND	0.0052	0.0018	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0052	0.0010	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0052	0.0015	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0052	0.0017	mg/l	
85-01-8	Phenanthrene	ND	0.0052	0.0010	mg/l	
129-00-0	Pyrene	ND	0.0052	0.0017	mg/l	
110-86-1	Pyridine	ND	0.0052	0.0010	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0052	0.0013	mg/l	

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-070111-CFM-012
Lab Sample ID: T80323-2
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	23%		10-66%
4165-62-2	Phenol-d5	17%		10-53%
118-79-6	2,4,6-Tribromophenol	67%		32-128%
4165-60-0	Nitrobenzene-d5	53%		29-115%
321-60-8	2-Fluorobiphenyl	54%		34-113%
1718-51-0	Terphenyl-d14	74%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	GW-075006-070111-CFM-012	Date Sampled:	07/01/11
Lab Sample ID:	T80323-2	Date Received:	07/02/11
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	CRA: Wingate Fractionating Plant		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	984	20	mg/l	1	07/12/11 09:00	MC	SM 2320B
Chemical Oxygen Demand	42.3	20	mg/l	1	07/12/11	BF	SM 5220D
Chloride	558	50	mg/l	100	07/10/11 01:25	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	07/02/11 21:44	ES	EPA 300/SW846 9056
Solids, Total Dissolved	4560	40	mg/l	1	07/07/11	BG	SM 2540C
Sulfate	2140	250	mg/l	500	07/10/11 01:42	ES	EPA 300/SW846 9056
pH	7.52		su	1	07/08/11 15:07	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-070111-CFM-012 (DISSOLVED)
Lab Sample ID: T80323-2F
Matrix: AQ - Groundwater Filtered
Project: CRA: Wingate Fractionating Plant
Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Barium	< 200	200	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Calcium	213000	5000	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Iron	< 100	100	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Magnesium	55400	5000	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Manganese	3330	15	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Sodium	1180000	50000	ug/l	10	07/07/11	07/11/11 NS	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA5905

(2) Instrument QC Batch: MA5911

(3) Prep QC Batch: MP15190

RL = Reporting Limit

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-013
Lab Sample ID: T80323-3
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F036055.D	1	07/12/11	AK	n/a	n/a	VF4331
Run #2	F036084.D	100	07/13/11	AK	n/a	n/a	VF4332
Run #3	F036083.D	500	07/13/11	AK	n/a	n/a	VF4332

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml
Run #3	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	20.3 ^a	0.50	0.12	mg/l	
108-88-3	Toluene	0.436 ^b	0.10	0.026	mg/l	
100-41-4	Ethylbenzene	0.0923	0.0010	0.00025	mg/l	
1330-20-7	Xylene (total)	0.569 ^b	0.30	0.071	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1868-53-7	Dibromofluoromethane	109%	114%	115%	79-122%
17060-07-0	1,2-Dichloroethane-D4	48% ^c	100%	102%	75-121%
2037-26-5	Toluene-D8	102%	107%	108%	87-119%
460-00-4	4-Bromofluorobenzene	123%	126%	126%	80-133%

(a) Result is from Run# 3

(b) Result is from Run# 2

(c) Outside control limits due to matrix interference. Confirmed by reanalysis.

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-014
Lab Sample ID: T80323-4
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X0074175.D	1	07/12/11	DR	n/a	n/a	VX1097
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: GW-075006-070111-CFM-014
 Lab Sample ID: T80323-4
 Matrix: AQ - Ground Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
 Date Received: 07/02/11
 Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		79-122%
17060-07-0	1,2-Dichloroethane-D4	95%		75-121%
2037-26-5	Toluene-D8	99%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-070111-CFM-014
Lab Sample ID: T80323-4
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-014
Lab Sample ID: T80323-4
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11

Date Received: 07/02/11

Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W6441.D	1	07/08/11	SG	07/07/11	OP19216	EW324
Run #2							

Run #	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	0.010	0.0050	mg/l	
95-57-8	2-Chlorophenol	ND	0.0051	0.0012	mg/l	
59-50-7	4-Chloro-3-methyl phenol	ND	0.0051	0.0012	mg/l	
120-83-2	2,4-Dichlorophenol	ND	0.0051	0.0022	mg/l	
105-67-9	2,4-Dimethylphenol	ND	0.0051	0.0013	mg/l	
51-28-5	2,4-Dinitrophenol	ND	0.025	0.015	mg/l	
534-52-1	4,6-Dinitro-o-cresol	ND	0.010	0.0014	mg/l	
95-48-7	2-Methylphenol	ND	0.0051	0.00084	mg/l	
	3&4-Methylphenol	ND	0.0051	0.0016	mg/l	
88-75-5	2-Nitrophenol	ND	0.0051	0.0020	mg/l	
100-02-7	4-Nitrophenol	ND	0.025	0.0067	mg/l	
87-86-5	Pentachlorophenol	ND	0.025	0.013	mg/l	
108-95-2	Phenol	ND	0.0051	0.00076	mg/l	
95-95-4	2,4,5-Trichlorophenol	ND	0.0051	0.0012	mg/l	
88-06-2	2,4,6-Trichlorophenol	ND	0.0051	0.0012	mg/l	
83-32-9	Acenaphthene	ND	0.0051	0.0016	mg/l	
208-96-8	Acenaphthylene	ND	0.0051	0.0012	mg/l	
62-53-3	Aniline	ND	0.0051	0.0046	mg/l	
120-12-7	Anthracene	ND	0.0051	0.0011	mg/l	
92-87-5	Benzidine	ND	0.025	0.0060	mg/l	
56-55-3	Benzo(a)anthracene	ND	0.0051	0.0011	mg/l	
50-32-8	Benzo(a)pyrene	ND	0.0051	0.0011	mg/l	
205-99-2	Benzo(b)fluoranthene	ND	0.0051	0.00088	mg/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.0051	0.0017	mg/l	
207-08-9	Benzo(k)fluoranthene	ND	0.0051	0.0011	mg/l	
101-55-3	4-Bromophenyl phenyl ether	ND	0.0051	0.0014	mg/l	
85-68-7	Butyl benzyl phthalate	ND	0.0051	0.0016	mg/l	
100-51-6	Benzyl Alcohol	ND	0.0051	0.0013	mg/l	
91-58-7	2-Chloronaphthalene	ND	0.0051	0.0014	mg/l	
106-47-8	4-Chloroaniline	ND	0.0051	0.0043	mg/l	
86-74-8	Carbazole	ND	0.0051	0.0015	mg/l	
218-01-9	Chrysene	ND	0.0051	0.00099	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GW-075006-070111-CFM-014
Lab Sample ID: T80323-4
Matrix: AQ - Ground Water
Method: SW846 8270C SW846 3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

ABN Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
111-91-1	bis(2-Chloroethoxy)methane	ND	0.0051	0.0013	mg/l	
111-44-4	bis(2-Chloroethyl)ether	ND	0.0051	0.0013	mg/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	0.0051	0.0020	mg/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	0.0051	0.0013	mg/l	
95-50-1	1,2-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
122-66-7	1,2-Diphenylhydrazine	ND	0.0051	0.0014	mg/l	
541-73-1	1,3-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
106-46-7	1,4-Dichlorobenzene	ND	0.0051	0.0013	mg/l	
121-14-2	2,4-Dinitrotoluene	ND	0.0051	0.0014	mg/l	
606-20-2	2,6-Dinitrotoluene	ND	0.0051	0.0013	mg/l	
91-94-1	3,3'-Dichlorobenzidine	ND	0.010	0.0032	mg/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.0051	0.0016	mg/l	
132-64-9	Dibenzofuran	ND	0.0051	0.0013	mg/l	
84-74-2	Di-n-butyl phthalate	ND	0.0051	0.0010	mg/l	
117-84-0	Di-n-octyl phthalate	ND	0.0051	0.0013	mg/l	
84-66-2	Diethyl phthalate	ND	0.0051	0.0011	mg/l	
131-11-3	Dimethyl phthalate	ND	0.0051	0.0011	mg/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	0.0051	0.0018	mg/l	
206-44-0	Fluoranthene	ND	0.0051	0.00098	mg/l	
86-73-7	Fluorene	ND	0.0051	0.0014	mg/l	
118-74-1	Hexachlorobenzene	ND	0.0051	0.0014	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0051	0.0011	mg/l	
77-47-4	Hexachlorocyclopentadiene	ND	0.010	0.0052	mg/l	
67-72-1	Hexachloroethane	ND	0.0051	0.00098	mg/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.0051	0.0018	mg/l	
78-59-1	Isophorone	ND	0.0051	0.0012	mg/l	
90-12-0	1-Methylnaphthalene	ND	0.0051	0.0011	mg/l	
91-57-6	2-Methylnaphthalene	ND	0.0051	0.0013	mg/l	
88-74-4	2-Nitroaniline	ND	0.0051	0.0014	mg/l	
99-09-2	3-Nitroaniline	ND	0.0051	0.0034	mg/l	
100-01-6	4-Nitroaniline	ND	0.0051	0.0024	mg/l	
91-20-3	Naphthalene	ND	0.0051	0.0011	mg/l	
98-95-3	Nitrobenzene	ND	0.0051	0.0017	mg/l	
62-75-9	n-Nitrosodimethylamine	ND	0.0051	0.00098	mg/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	0.0051	0.0014	mg/l	
86-30-6	N-Nitrosodiphenylamine	ND	0.0051	0.0017	mg/l	
85-01-8	Phenanthrene	ND	0.0051	0.00098	mg/l	
129-00-0	Pyrene	ND	0.0051	0.0017	mg/l	
110-86-1	Pyridine	ND	0.0051	0.0010	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0051	0.0013	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: GW-075006-070111-CFM-014
Lab Sample ID: T80323-4
Matrix: AQ - Ground Water
Method: SW846 8270C SW846.3510C
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

ABN Full List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		10-66%
4165-62-2	Phenol-d5	20%		10-53%
118-79-6	2,4,6-Tribromophenol	48%		32-128%
4165-60-0	Nitrobenzene-d5	42%		29-115%
321-60-8	2-Fluorobiphenyl	41%		34-113%
1718-51-0	Terphenyl-d14	53%		12-145%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-070111-CFM-014
Lab Sample ID: T80323-4
Matrix: AQ - Ground Water
Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11
Date Received: 07/02/11
Percent Solids: n/a

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO ₃	432	20	mg/l	1	07/12/11 09:00	MC	SM 2320B
Chemical Oxygen Demand	< 20	20	mg/l	1	07/12/11	BF	SM 5220D
Chloride	23.5	1.0	mg/l	2	07/10/11 01:59	ES	EPA 300/SW846 9056
Nitrogen, Nitrate	< 0.50	0.50	mg/l	1	07/02/11 22:01	ES	EPA 300/SW846 9056
Solids, Total Dissolved	735	10	mg/l	1	07/07/11	BG	SM 2540C
Sulfate	185	10	mg/l	20	07/10/11 15:46	ES	EPA 300/SW846 9056
pH	7.66		su	1	07/08/11 15:07	SS	SM 4500H+ B/9040

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: GW-075006-070111-CFM-014 (DISSOLVED)

Lab Sample ID: T80323-4F

Date Sampled: 07/01/11

Matrix: AQ - Groundwater Filtered

Date Received: 07/02/11

Percent Solids: n/a

Project: CRA: Wingate Fractionating Plant

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Barium	200	200	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Cadmium	< 4.0	4.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Calcium	41800	5000	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Iron	< 100	100	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Lead	< 3.0	3.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Magnesium	19500	5000	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Manganese	344	15	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Selenium	< 5.0	5.0	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Silver	< 10	10	ug/l	1	07/07/11	07/09/11 NS	SW846 6010B ¹	SW846 3010A ³
Sodium	217000	25000	ug/l	5	07/07/11	07/11/11 NS	SW846 6010B ²	SW846 3010A ³

(1) Instrument QC Batch: MA5905

(2) Instrument QC Batch: MA5911

(3) Prep QC Batch: MP15190

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TB-070111-001	Date Sampled:	07/01/11
Lab Sample ID:	T80323-5	Date Received:	07/02/11
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	CRA: Wingate Fractionating Plant		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z018326.D	1	07/12/11	DR	n/a	n/a	VZ3297
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	0.050	0.010	mg/l	
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-86-1	Bromobenzene	ND	0.0010	0.00027	mg/l	
74-97-5	Bromochloromethane	ND	0.0010	0.00042	mg/l	
75-27-4	Bromodichloromethane	ND	0.0010	0.00025	mg/l	
75-25-2	Bromoform	ND	0.0010	0.00035	mg/l	
104-51-8	n-Butylbenzene	ND	0.0010	0.00030	mg/l	
135-98-8	sec-Butylbenzene	ND	0.0010	0.00034	mg/l	
98-06-6	tert-Butylbenzene	ND	0.0010	0.00032	mg/l	
108-90-7	Chlorobenzene	ND	0.0010	0.00022	mg/l	
75-00-3	Chloroethane	ND	0.0010	0.00044	mg/l	
67-66-3	Chloroform	ND	0.0010	0.00020	mg/l	
95-49-8	o-Chlorotoluene	ND	0.0010	0.00028	mg/l	
106-43-4	p-Chlorotoluene	ND	0.0010	0.00029	mg/l	
75-15-0	Carbon disulfide	ND	0.0010	0.00036	mg/l	
56-23-5	Carbon tetrachloride	ND	0.0010	0.00036	mg/l	
75-34-3	1,1-Dichloroethane	ND	0.0010	0.00029	mg/l	
75-35-4	1,1-Dichloroethylene	ND	0.0010	0.00040	mg/l	
563-58-6	1,1-Dichloropropene	ND	0.0010	0.00033	mg/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.0020	0.00087	mg/l	
106-93-4	1,2-Dibromoethane	ND	0.0010	0.00027	mg/l	
107-06-2	1,2-Dichloroethane	ND	0.0010	0.00020	mg/l	
78-87-5	1,2-Dichloropropane	ND	0.0010	0.00025	mg/l	
142-28-9	1,3-Dichloropropane	ND	0.0010	0.00021	mg/l	
594-20-7	2,2-Dichloropropane	ND	0.0010	0.00037	mg/l	
124-48-1	Dibromochloromethane	ND	0.0010	0.00029	mg/l	
75-71-8	Dichlorodifluoromethane	ND	0.0020	0.00090	mg/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.0010	0.00024	mg/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.0010	0.00020	mg/l	
541-73-1	m-Dichlorobenzene	ND	0.0010	0.00025	mg/l	
95-50-1	o-Dichlorobenzene	ND	0.0010	0.00028	mg/l	
106-46-7	p-Dichlorobenzene	ND	0.0010	0.00029	mg/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 2 of 3

Client Sample ID: TB-070111-001
 Lab Sample ID: T80323-5
 Matrix: AQ - Trip Blank Water
 Method: SW846 8260B
 Project: CRA: Wingate Fractionating Plant

Date Sampled: 07/01/11

Date Received: 07/02/11

Percent Solids: n/a

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.0010	0.00030	mg/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.0010	0.00021	mg/l	
100-41-4	Ethylbenzene	ND	0.0010	0.00025	mg/l	
591-78-6	2-Hexanone	ND	0.010	0.0024	mg/l	
87-68-3	Hexachlorobutadiene	ND	0.0010	0.00066	mg/l	
98-82-8	Isopropylbenzene	ND	0.0010	0.00027	mg/l	
99-87-6	p-Isopropyltoluene	ND	0.0010	0.00034	mg/l	
108-10-1	4-Methyl-2-pentanone	ND	0.010	0.0019	mg/l	
74-83-9	Methyl bromide	ND	0.0010	0.00031	mg/l	
74-87-3	Methyl chloride	ND	0.0010	0.00027	mg/l	
74-95-3	Methylene bromide	ND	0.0010	0.00030	mg/l	
75-09-2	Methylene chloride	ND	0.0050	0.0010	mg/l	
78-93-3	Methyl ethyl ketone	ND	0.010	0.0018	mg/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.0010	0.00028	mg/l	
91-20-3	Naphthalene	ND	0.0050	0.0010	mg/l	
103-65-1	n-Propylbenzene	ND	0.0010	0.00027	mg/l	
100-42-5	Styrene	ND	0.0010	0.00022	mg/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.0010	0.00024	mg/l	
71-55-6	1,1,1-Trichloroethane	ND	0.0010	0.00031	mg/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.0010	0.00038	mg/l	
79-00-5	1,1,2-Trichloroethane	ND	0.0010	0.00036	mg/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.0010	0.00051	mg/l	
96-18-4	1,2,3-Trichloropropane	ND	0.0010	0.00046	mg/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.0010	0.00033	mg/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.0010	0.00024	mg/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.0010	0.00027	mg/l	
127-18-4	Tetrachloroethylene	ND	0.0010	0.00033	mg/l	
108-88-3	Toluene	ND	0.0010	0.00026	mg/l	
79-01-6	Trichloroethylene	ND	0.0010	0.00036	mg/l	
75-69-4	Trichlorofluoromethane	ND	0.0010	0.00041	mg/l	
75-01-4	Vinyl chloride	ND	0.0010	0.00040	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.00071	mg/l	
	m,p-Xylene	ND	0.0020	0.00048	mg/l	
95-47-6	o-Xylene	ND	0.0010	0.00023	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		79-122%
17060-07-0	1,2-Dichloroethane-D4	94%		75-121%
2037-26-5	Toluene-D8	105%		87-119%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 3 of 3

Client Sample ID: TB-070111-001	
Lab Sample ID: T80323-5	Date Sampled: 07/01/11
Matrix: AQ - Trip Blank Water	Date Received: 07/02/11
Method: SW846 8260B	Percent Solids: n/a
Project: CRA: Wingate Fractionating Plant	

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%		80-133%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound



Gulf Coast

ACCUTEST®

LABORATORIES



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

Accutest Gulf Coast/SPL Environmental
10165 Harwin Drive, Suite 150, Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.acctest.com

PAGE 1 OF 1

FED-EX Tracking #	Balance Order Control #
Accutest Chain #	Accutest Job #

T80323

Client / Reporting Information		Project Information		Requested Analyses												Matrix Codes									
Company Name CRA		Project Name Wingate Fractionating Plant																							
Street Address 6121 Indian School Rd. NE, Ste. 200		City Albuquerque NM		State NM		Zip 87110																			
Project Contact Kelly Blanchard		Project # 075006		Client Purchase Order #		Street Address 1358 Phillips Bldg., 420 S. Keeler Ave.																			
Phone # 505-237-8440		Phone # 505-237-8656		Project Manager Hoy Bryson		City Bartlesville OK		State OK		Zip 74004															
Sampler(s) Name(s) Christine McHale & Tim Fish		Collection Hoy Bryson		Attention: Tom Wynn																					
Field ID / Point of Collection		Date		Time		Matrix		# of bottles		Number of preserved bottles												LAB USE ONLY			
1 GW-075006-070111-CFM-011		7-1-11		0910		GW		3		X															
1 GW-075006-070111-CFM-011		7-1-11		0910		GW		4		X															
2 GW-075006-070111-CFM-012		7-1-11		1005		GW		3		X															
2 GW-075006-070111-CFM-012		7-1-11		1005		GW		4		X															
3 GW-075006-070111-CFM-013		7-1-11		0910		GW		3		X															
4 GW-075006-070111-CFM-014		7-1-11		1355		GW		2		X															
4 GW-075006-070111-CFM-014		7-1-11		1355		GW		4		X															
5 TB-070111-001		7-1-11		1530				2																	
Turnaround Time (Business days)		Approved By (Accutest PID) / Date:		Data Deliverable Information		Comments / Special Instructions																			
☒ Standard ☐ 5 Day RUSH ☐ 4 Day RUSH ☐ 3 Day RUSH ☐ 2 Day RUSH ☐ 1 Day EMERGENCY Emergency & Rush T/A data available via LabLink		☐ Commercial "A" (Level 1) ☒ Commercial "B" (Level 2) ☐ FULLT (Level 3 & 4) ☐ REDT1 (Level 3 & 4) ☐ Commercial "C"		☐ TRAP ☐ EDD Format ☐ Other																					
Sample Custody must be documented below each time samples change possession, including courier delivery.		Received By:		Received By:		Received By:		Received By:		Received By:															
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx		7/2/11 1040		2															
3				4						4															
Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:		Date/Time:		Relinquished by:													
1		7-1-11 1615		2		FedEx																			

Sample Receipt Log

Page 2 of 3

 Job #: T80323

 Date / Time Received: 7/2/2011 10:40:00 AM

 Initials: DARRELLH

 Client: CONOCO PHILLIPS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T80323-1	1 LAG	1	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-1	1 LAG	2	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-1	1000 ml	3	3 F	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-1	500 ml	4	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-1	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-1	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-1	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-2	1 LAG	1	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-2	1 LAG	2	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-2	1000 ml	3	3 F	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-2	500 ml	4	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-2	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-2	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-2	40 ml	7	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-3	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-3	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-3	40 ml	3	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-4	1 LAG	1	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-4	1 LAG	2	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-4	1000 ml	3	3 F	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-4	500 ml	4	1 KK	N/P	Note #2 - Preservative check not applicable.	110	3.5	-0.5	3
1	T80323-4	40 ml	5	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
1	T80323-4	40 ml	6	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3

T80323: Chain of Custody

Page 3 of 4

Sample Receipt Log

Page 3 of 3

Job #: T80323

Date / Time Received: 7/2/2011 10:40:00 AM

Initials: DARRELLH

Client: CONOCO PHILLIPS

Cooler #	Sample ID:	Vol	Bot #	Location	Pres	pH	Therm ID	Initial Temp	Therm CF	Corrected Temp
1	T80323-5	40 ml	1	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.	110	3.5	-0.5	3
	T80323-5	40 ml	2	VR	HCL	Note #1 - Preservative to be checked by analyst at the instrument.				

3.1


T80323: Chain of Custody
Page 4 of 4



Gulf Coast

ACCUTEST

LABORATORIES

4

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4327-MB	F035952.D	1	07/10/11	AK	n/a	n/a	VF4327

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	104% 79-122%
17060-07-0	1,2-Dichloroethane-D4	97% 75-121%
2037-26-5	Toluene-D8	105% 87-119%
460-00-4	4-Bromofluorobenzene	123% 80-133%

Method Blank Summary

Page 1 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.27	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.34	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.28	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.33	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.87	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.27	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.21	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.25	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.27	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.33	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.41	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 79-122%
17060-07-0	1,2-Dichloroethane-D4	96% 75-121%

Method Blank Summary

Page 3 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-MB	X0074157.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	97% 87-119%
460-00-4	4-Bromofluorobenzene	98% 80-133%

Method Blank Summary

Page 1 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3297-MB	Z018323.D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	10	ug/l	
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.27	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.25	ug/l	
75-25-2	Bromoform	ND	1.0	0.35	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.30	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.34	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.28	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.29	ug/l	
75-15-0	Carbon disulfide	ND	1.0	0.36	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.36	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.29	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.40	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.33	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.87	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.27	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.25	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.21	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.37	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.29	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.25	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.28	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.29	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.30	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
591-78-6	2-Hexanone	ND	10	2.4	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3297-MB	Z018323.D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Compound	Result	RL	MDL	Units	Q
87-68-3	Hexachlorobutadiene	ND	1.0	0.66	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.27	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.9	ug/l	
74-83-9	Methyl bromide	ND	1.0	0.31	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.27	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.28	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.27	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.24	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.31	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.38	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.36	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.51	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	1.0	0.46	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.33	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.24	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.27	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.33	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.36	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.41	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.40	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	
	m,p-Xylene	ND	2.0	0.48	ug/l	
95-47-6	o-Xylene	ND	1.0	0.23	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 79-122%
17060-07-0	1,2-Dichloroethane-D4	93% 75-121%

Method Blank Summary

Page 3 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3297-MB	Z018323.D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Surrogate Recoveries	Limits
2037-26-5	Toluene-D8	102% 87-119%
460-00-4	4-Bromofluorobenzene	94% 80-133%

Method Blank Summary

Page 1 of 1

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4331-MB	F036042.D	1	07/12/11	AK	n/a	n/a	VF4331

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-3

CAS No.	Compound	Result	RL	MDL	Units	Q
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	109% 79-122%
17060-07-0	1,2-Dichloroethane-D4	102% 75-121%
2037-26-5	Toluene-D8	103% 87-119%
460-00-4	4-Bromofluorobenzene	118% 80-133%

Method Blank Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4332-MB	F036067.D	1	07/13/11	AK	n/a	n/a	VF4332

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
108-88-3	Toluene	ND	1.0	0.26	ug/l	
1330-20-7	Xylene (total)	ND	3.0	0.71	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	116% 79-122%
17060-07-0	1,2-Dichloroethane-D4	107% 75-121%
2037-26-5	Toluene-D8	104% 87-119%
460-00-4	4-Bromofluorobenzene	121% 80-133%

Method Blank Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG120-MB	G002881.D	1	07/13/11	JL	n/a	n/a	VG120

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	85% 79-122%
17060-07-0	1,2-Dichloroethane-D4	82% 75-121%
2037-26-5	Toluene-D8	96% 87-119%
460-00-4	4-Bromofluorobenzene	93% 80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4327-BS	F035950.D	1	07/10/11	AK	n/a	n/a	VF4327

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	27.6	110	76-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	107%	79-122%
17060-07-0	1,2-Dichloroethane-D4	104%	75-121%
2037-26-5	Toluene-D8	108%	87-119%
460-00-4	4-Bromofluorobenzene	118%	80-133%

Blank Spike Summary

Page 1 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	100	80	62-124
71-43-2	Benzene	25	24.3	97	76-118
108-86-1	Bromobenzene	25	23.6	94	72-110
74-97-5	Bromochloromethane	25	23.9	96	69-110
75-27-4	Bromodichloromethane	25	23.9	96	68-107
75-25-2	Bromoform	25	22.9	92	64-103
104-51-8	n-Butylbenzene	25	24.5	98	74-114
135-98-8	sec-Butylbenzene	25	25.6	102	76-118
98-06-6	tert-Butylbenzene	25	24.7	99	72-116
108-90-7	Chlorobenzene	25	24.7	99	74-111
75-00-3	Chloroethane	25	26.0	104	75-135
67-66-3	Chloroform	25	23.7	95	75-117
95-49-8	o-Chlorotoluene	25	23.7	95	74-113
106-43-4	p-Chlorotoluene	25	24.7	99	72-114
75-15-0	Carbon disulfide	25	25.5	102	57-126
56-23-5	Carbon tetrachloride	25	26.6	106	75-125
75-34-3	1,1-Dichloroethane	25	25.3	101	76-121
75-35-4	1,1-Dichloroethylene	25	27.7	111	71-128
563-58-6	1,1-Dichloropropene	25	26.8	107	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	22.7	91	55-121
106-93-4	1,2-Dibromoethane	25	23.5	94	69-106
107-06-2	1,2-Dichloroethane	25	23.7	95	70-111
78-87-5	1,2-Dichloropropane	25	24.0	96	71-113
142-28-9	1,3-Dichloropropane	25	22.9	92	69-106
594-20-7	2,2-Dichloropropane	25	26.5	106	68-130
124-48-1	Dibromochloromethane	25	23.8	95	69-104
75-71-8	Dichlorodifluoromethane	25	29.8	119	28-120
156-59-2	cis-1,2-Dichloroethylene	25	24.0	96	68-113
10061-01-5	cis-1,3-Dichloropropene	25	24.3	97	71-111
541-73-1	m-Dichlorobenzene	25	24.5	98	74-110
95-50-1	o-Dichlorobenzene	25	24.1	96	72-108
106-46-7	p-Dichlorobenzene	25	24.2	97	74-110
156-60-5	trans-1,2-Dichloroethylene	25	24.9	100	70-125
10061-02-6	trans-1,3-Dichloropropene	25	25.2	101	75-111
100-41-4	Ethylbenzene	25	24.3	97	75-112
591-78-6	2-Hexanone	125	97.6	78	60-113

Blank Spike Summary

Page 2 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	26.8	107	72-123
98-82-8	Isopropylbenzene	25	28.9	116	75-123
99-87-6	p-Isopropyltoluene	25	26.0	104	76-116
108-10-1	4-Methyl-2-pentanone	125	100	80	63-115
74-83-9	Methyl bromide	25	26.6	106	59-132
74-87-3	Methyl chloride	25	25.3	101	56-150
74-95-3	Methylene bromide	25	23.5	94	68-114
75-09-2	Methylene chloride	25	23.3	93	70-113
78-93-3	Methyl ethyl ketone	125	104	83	62-117
1634-04-4	Methyl Tert Butyl Ether	25	21.9	88	65-113
91-20-3	Naphthalene	25	22.7	91	53-127
103-65-1	n-Propylbenzene	25	25.1	100	74-115
100-42-5	Styrene	25	24.5	98	76-110
630-20-6	1,1,1,2-Tetrachloroethane	25	24.1	96	72-108
71-55-6	1,1,1-Trichloroethane	25	25.2	101	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	22.1	88	67-110
79-00-5	1,1,2-Trichloroethane	25	22.8	91	69-107
87-61-6	1,2,3-Trichlorobenzene	25	23.9	96	51-128
96-18-4	1,2,3-Trichloropropane	25	22.0	88	55-116
120-82-1	1,2,4-Trichlorobenzene	25	24.3	97	63-114
95-63-6	1,2,4-Trimethylbenzene	25	23.9	96	73-111
108-67-8	1,3,5-Trimethylbenzene	25	23.8	95	74-115
127-18-4	Tetrachloroethylene	25	25.6	102	77-120
108-88-3	Toluene	25	24.3	97	77-114
79-01-6	Trichloroethylene	25	24.5	98	74-117
75-69-4	Trichlorofluoromethane	25	28.8	115	64-132
75-01-4	Vinyl chloride	25	23.9	96	64-121
1330-20-7	Xylene (total)	75	73.1	97	75-111
	m,p-Xylene	50	48.9	98	75-112
95-47-6	o-Xylene	25	24.1	96	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	79-122%
17060-07-0	1,2-Dichloroethane-D4	92%	75-121%

Blank Spike Summary

Page 3 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VX1097-BS	X0074155.D	1	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	100%	87-119%
460-00-4	4-Bromofluorobenzene	97%	80-133%

Blank Spike Summary

Page 1 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3297-BS	Z018321:D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	125	100	62-124
71-43-2	Benzene	25	25.8	103	76-118
108-86-1	Bromobenzene	25	22.9	92	72-110
74-97-5	Bromochloromethane	25	23.8	95	69-110
75-27-4	Bromodichloromethane	25	23.3	93	68-107
75-25-2	Bromoform	25	21.1	84	64-103
104-51-8	n-Butylbenzene	25	20.8	83	74-114
135-98-8	sec-Butylbenzene	25	23.5	94	76-118
98-06-6	tert-Butylbenzene	25	23.9	96	72-116
108-90-7	Chlorobenzene	25	23.7	95	74-111
75-00-3	Chloroethane	25	31.8	127	75-135
67-66-3	Chloroform	25	24.0	96	75-117
95-49-8	o-Chlorotoluene	25	24.0	96	74-113
106-43-4	p-Chlorotoluene	25	23.9	96	72-114
75-15-0	Carbon disulfide	25	27.7	111	57-126
56-23-5	Carbon tetrachloride	25	25.8	103	75-125
75-34-3	1,1-Dichloroethane	25	25.2	101	76-121
75-35-4	1,1-Dichloroethylene	25	28.9	116	71-128
563-58-6	1,1-Dichloropropene	25	26.6	106	76-122
96-12-8	1,2-Dibromo-3-chloropropane	25	20.2	81	55-121
106-93-4	1,2-Dibromoethane	25	23.0	92	69-106
107-06-2	1,2-Dichloroethane	25	24.0	96	70-111
78-87-5	1,2-Dichloropropane	25	26.0	104	71-113
142-28-9	1,3-Dichloropropane	25	22.6	90	69-106
594-20-7	2,2-Dichloropropane	25	25.5	102	68-130
124-48-1	Dibromochloromethane	25	23.3	93	69-104
75-71-8	Dichlorodifluoromethane	25	30.9	124*	28-120
156-59-2	cis-1,2-Dichloroethylene	25	24.6	98	68-113
10061-01-5	cis-1,3-Dichloropropene	25	23.9	96	71-111
541-73-1	m-Dichlorobenzene	25	23.5	94	74-110
95-50-1	o-Dichlorobenzene	25	22.9	92	72-108
106-46-7	p-Dichlorobenzene	25	23.3	93	74-110
156-60-5	trans-1,2-Dichloroethylene	25	23.4	94	70-125
10061-02-6	trans-1,3-Dichloropropene	25	23.2	93	75-111
100-41-4	Ethylbenzene	25	24.5	98	75-112
591-78-6	2-Hexanone	125	96.0	77	60-113

Blank Spike Summary

Page 2 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3297-BS	Z018321.D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
87-68-3	Hexachlorobutadiene	25	21.5	86	72-123
98-82-8	Isopropylbenzene	25	24.9	100	75-123
99-87-6	p-Isopropyltoluene	25	21.5	86	76-116
108-10-1	4-Methyl-2-pentanone	125	118	94	63-115
74-83-9	Methyl bromide	25	30.7	123	59-132
74-87-3	Methyl chloride	25	28.7	115	56-150
74-95-3	Methylene bromide	25	23.0	92	68-114
75-09-2	Methylene chloride	25	25.4	102	70-113
78-93-3	Methyl ethyl ketone	125	122	98	62-117
1634-04-4	Methyl Tert Butyl Ether	25	23.5	94	65-113
91-20-3	Naphthalene	25	20.5	82	53-127
103-65-1	n-Propylbenzene	25	23.9	96	74-115
100-42-5	Styrene	25	24.1	96	76-110
630-20-6	1,1,1,2-Tetrachloroethane	25	23.2	93	72-108
71-55-6	1,1,1-Trichloroethane	25	25.0	100	76-125
79-34-5	1,1,2,2-Tetrachloroethane	25	23.6	94	67-110
79-00-5	1,1,2-Trichloroethane	25	23.4	94	69-107
87-61-6	1,2,3-Trichlorobenzene	25	20.6	82	51-128
96-18-4	1,2,3-Trichloropropane	25	21.6	86	55-116
120-82-1	1,2,4-Trichlorobenzene	25	21.0	84	63-114
95-63-6	1,2,4-Trimethylbenzene	25	22.9	92	73-111
108-67-8	1,3,5-Trimethylbenzene	25	22.3	89	74-115
127-18-4	Tetrachloroethylene	25	24.6	98	77-120
108-88-3	Toluene	25	24.4	98	77-114
79-01-6	Trichloroethylene	25	23.9	96	74-117
75-69-4	Trichlorofluoromethane	25	29.2	117	64-132
75-01-4	Vinyl chloride	25	26.2	105	64-121
1330-20-7	Xylene (total)	75	71.9	96	75-111
	m,p-Xylene	50	48.3	97	75-112
95-47-6	o-Xylene	25	23.6	94	74-110

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	79-122%
17060-07-0	1,2-Dichloroethane-D4	92%	75-121%

Blank Spike Summary

Page 3 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ3297-BS	Z018321.D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Surrogate Recoveries	BSP	Limits
2037-26-5	Toluene-D8	97%	87-119%
460-00-4	4-Bromofluorobenzene	96%	80-133%

(a) Outside control limits biased high. Only ND results for this compound are reported for all the samples associated with this BS. AZ: L1

Blank Spike Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4331-BS	F036040.D	1	07/12/11	AK	n/a	n/a	VF4331

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
100-41-4	Ethylbenzene	25	25.4	102	75-112

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	108%	79-122%
17060-07-0	1,2-Dichloroethane-D4	103%	75-121%
2037-26-5	Toluene-D8	103%	87-119%
460-00-4	4-Bromofluorobenzene	116%	80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VF4332-BS	F036065.D	1	07/13/11	AK	n/a	n/a	VF4332

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	26.0	104	76-118
108-88-3	Toluene	25	22.9	92	77-114
1330-20-7	Xylene (total)	75	69.1	92	75-111

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	113%	79-122%
17060-07-0	1,2-Dichloroethane-D4	106%	75-121%
2037-26-5	Toluene-D8	103%	87-119%
460-00-4	4-Bromofluorobenzene	117%	80-133%

Blank Spike Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG120-BS	G002878.D	1	07/13/11	JL	n/a	n/a	VG120

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.6	102	76-118

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	89%	79-122%
17060-07-0	1,2-Dichloroethane-D4	82%	75-121%
2037-26-5	Toluene-D8	99%	87-119%
460-00-4	4-Bromofluorobenzene	97%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80131-16MS	F035959.D	50	07/10/11	AK	n/a	n/a	VF4327
T80131-16MSD	F035960.D	50	07/10/11	AK	n/a	n/a	VF4327
T80131-16	F035958.D	50	07/10/11	AK	n/a	n/a	VF4327

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1

CAS No.	Compound	T80131-16 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	61.7	1250	1460	112%	1450	111%	1	76-118/16

CAS No.	Surrogate Recoveries	MS	MSD	T80131-16	Limits
1868-53-7	Dibromofluoromethane	103%	103%	102%	79-122%
17060-07-0	1,2-Dichloroethane-D4	102%	100%	98%	75-121%
2037-26-5	Toluene-D8	104%	104%	104%	87-119%
460-00-4	4-Bromofluorobenzene	118%	119%	122%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D 50		07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Compound	T80288-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	88.3	125	195	85	195	85	0	62-124/21
71-43-2	Benzene	ND	25	2330	80	2350	160* a	1	76-118/16
108-86-1	Bromobenzene	ND	25	22.0	88	21.9	88	0	72-110/12
74-97-5	Bromochloromethane	ND	25	22.6	90	22.5	90	0	69-110/12
75-27-4	Bromodichloromethane	ND	25	23.1	92	22.7	91	2	68-107/12
75-25-2	Bromoform	ND	25	20.7	83	21.3	85	3	64-103/14
104-51-8	n-Butylbenzene	13.1	25	32.9	79	32.1	76	2	74-114/12
135-98-8	sec-Butylbenzene	8.8	25	30.4	86	29.3	82	4	76-118/12
98-06-6	tert-Butylbenzene	ND	25	20.4	82	19.5	78	5	72-116/14
108-90-7	Chlorobenzene	ND	25	22.7	91	22.0	88	3	74-111/11
75-00-3	Chloroethane	ND	25	25.7	103	25.1	100	2	75-135/15
67-66-3	Chloroform	ND	25	23.0	92	22.4	90	3	75-117/12
95-49-8	o-Chlorotoluene	ND	25	65.6	262* b	55.8	223* b	16* c	74-113/12
106-43-4	p-Chlorotoluene	ND	25	16.1	64* d	16.1	64* d	0	72-114/12
75-15-0	Carbon disulfide	ND	25	24.0	96	22.8	91	5	57-126/13
56-23-5	Carbon tetrachloride	ND	25	24.4	98	23.5	94	4	75-125/12
75-34-3	1,1-Dichloroethane	ND	25	23.8	95	23.0	92	3	76-121/13
75-35-4	1,1-Dichloroethylene	ND	25	24.7	99	24.6	98	0	71-128/19
563-58-6	1,1-Dichloropropene	ND	25	24.4	98	23.4	94	4	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	ND	25	26.6	106	27.7	111	4	55-121/33
106-93-4	1,2-Dibromoethane	49.3	25	71.0	87	71.3	88	0	69-106/13
107-06-2	1,2-Dichloroethane	ND	25	185	740* b	185	740* b	0	70-111/14
78-87-5	1,2-Dichloropropane	ND	25	24.1	96	23.7	95	2	71-113/12
142-28-9	1,3-Dichloropropane	ND	25	21.4	86	21.5	86	0	69-106/12
594-20-7	2,2-Dichloropropane	ND	25	15.5	62* d	14.5	58* d	7	68-130/14
124-48-1	Dibromochloromethane	ND	25	21.8	87	21.9	88	0	69-104/12
75-71-8	Dichlorodifluoromethane	ND	25	26.7	107	25.4	102	5	28-120/21
156-59-2	cis-1,2-Dichloroethylene	ND	25	22.7	91	22.0	88	3	68-113/13
10061-01-5	cis-1,3-Dichloropropene	ND	25	21.1	84	20.9	84	1	71-111/12
541-73-1	m-Dichlorobenzene	ND	25	21.9	88	21.8	87	0	74-110/12
95-50-1	o-Dichlorobenzene	ND	25	21.7	87	21.8	87	0	72-108/12
106-46-7	p-Dichlorobenzene	ND	25	21.8	87	21.6	86	1	74-110/12
156-60-5	trans-1,2-Dichloroethylene	ND	25	23.0	92	22.5	90	2	70-125/14
10061-02-6	trans-1,3-Dichloropropene	ND	25	20.6	82	20.5	82	0	75-111/12
100-41-4	Ethylbenzene	1270 c	25	967	32* a	959	0* a	1	75-112/12
591-78-6	2-Hexanone	51.8	125	163	89	169	94	4	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D 1		07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D 50		07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Compound	T80288-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	ND		25	20.4	82	19.8	79	3	72-123/17
98-82-8	Isopropylbenzene	68.5		25	93.8	101	89.9	86	4	75-123/12
99-87-6	p-Isopropyltoluene	2.7		25	24.9	89	24.2	86	3	76-116/12
108-10-1	4-Methyl-2-pentanone	21.8		125	123	81	129	86	5	63-115/21
74-83-9	Methyl bromide	ND		25	24.3	97	23.7	95	3	59-132/15
74-87-3	Methyl chloride	ND		25	24.3	97	24.4	98	0	56-150/17
74-95-3	Methylene bromide	ND		25	22.5	90	22.9	92	2	68-114/13
75-09-2	Methylene chloride	ND		25	20.8	83	20.6	82	1	70-113/13
78-93-3	Methyl ethyl ketone	66.5		125	161	76	180	91	11	62-117/21
1634-04-4	Methyl Tert Butyl Ether	0.73	J	25	21.9	85	22.4	87	2	65-113/13
91-20-3	Naphthalene	498 ^c		25	418	104	431	156* ^a	3	53-127/34
103-65-1	n-Propylbenzene	158		25	179	84	173	60* ^a	3	74-115/12
100-42-5	Styrene	ND		25	46.6	186* ^b	46.0	184* ^b	1	76-110/11
630-20-6	1,1,1,2-Tetrachloroethane	ND		25	21.1	84	20.7	83	2	72-108/11
71-55-6	1,1,1-Trichloroethane	ND		25	23.6	94	22.6	90	4	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	24.3	97	24.7	99	2	67-110/20
79-00-5	1,1,2-Trichloroethane	0.71	J	25	22.4	87	22.2	86	1	69-107/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	20.8	83	21.3	85	2	51-128/31
96-18-4	1,2,3-Trichloropropane	ND		25	22.5	90	23.1	92	3	55-116/27
120-82-1	1,2,4-Trichlorobenzene	ND		25	20.6	82	21.1	84	2	63-114/21
95-63-6	1,2,4-Trimethylbenzene	659 ^c		25	609	40* ^a	597	8* ^a	2	73-111/13
108-67-8	1,3,5-Trimethylbenzene	172		25	194	88	182	40* ^a	6	74-115/12
127-18-4	Tetrachloroethylene	ND		25	23.1	92	22.2	89	4	77-120/13
108-88-3	Toluene	ND		25	2000	80	1990	40* ^a	1	77-114/12
79-01-6	Trichloroethylene	ND		25	22.5	90	22.4	90	0	74-117/12
75-69-4	Trichlorofluoromethane	ND		25	26.9	108	25.4	102	6	64-132/18
75-01-4	Vinyl chloride	ND		25	23.5	94	22.4	90	5	64-121/19
1330-20-7	Xylene (total)	2990 ^c		75	2300	13* ^a	2280	13* ^a	1	75-111/12
	m,p-Xylene	1640 ^c		50	1240	20* ^a	1220	20* ^a	2	75-112/12
95-47-6	o-Xylene	1350 ^c		25	1060	0* ^a	1050	40* ^a	1	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T80288-1	T80288-1	Limits
1868-53-7	Dibromofluoromethane	100%	102%	102%	100%	79-122%
17060-07-0	1,2-Dichloroethane-D4	93%	94%	95%	95%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80288-1MS	X0074160.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1MSD	X0074161.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074159.D	1	07/12/11	DR	n/a	n/a	VX1097
T80288-1	X0074163.D	50	07/12/11	DR	n/a	n/a	VX1097

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-1, T80323-2, T80323-4

CAS No.	Surrogate Recoveries	MS	MSD	T80288-1	T80288-1	Limits
2037-26-5	Toluene-D8	98%	99%	98%	98%	87-119%
460-00-4	4-Bromofluorobenzene	100%	100%	101%	99%	80-133%

(a) Outside control limits due to high level in sample relative to spike amount. AZ: M3

(b) AZ: M1

(c) AZ: R9

(d) AZ: M2

(e) Result is from Run #2.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80685-1MS	Z018328.D	1	07/12/11	DR	n/a	n/a	VZ3297
T80685-1MSD	Z018329.D	1	07/12/11	DR	n/a	n/a	VZ3297
T80685-1	Z018327.D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Compound	T80685-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50 U	125	136	109	137	110	1	62-124/21
71-43-2	Benzene	1.0 U	25	24.3	97	24.0	96	1	76-118/16
108-86-1	Bromobenzene	1.0 U	25	21.9	88	21.4	86	2	72-110/12
74-97-5	Bromochloromethane	1.0 U	25	23.5	94	23.7	95	1	69-110/12
75-27-4	Bromodichloromethane	1.0 U	25	22.1	88	22.6	90	2	68-107/12
75-25-2	Bromoform	1.0 U	25	19.8	79	20.2	81	2	64-103/14
104-51-8	n-Butylbenzene	1.0 U	25	18.3	73* a	18.5	74	1	74-114/12
135-98-8	sec-Butylbenzene	1.0 U	25	20.9	84	20.7	83	1	76-118/12
98-06-6	tert-Butylbenzene	1.0 U	25	21.6	86	21.5	86	0	72-116/14
108-90-7	Chlorobenzene	1.0 U	25	22.3	89	22.4	90	0	74-111/11
75-00-3	Chloroethane	1.0 U	25	26.7	107	27.8	111	4	75-135/15
67-66-3	Chloroform	1.0 U	25	23.0	92	23.2	93	1	75-117/12
95-49-8	o-Chlorotoluene	1.0 U	25	22.3	89	21.7	87	3	74-113/12
106-43-4	p-Chlorotoluene	1.0 U	25	21.8	87	22.0	88	1	72-114/12
75-15-0	Carbon disulfide	1.0 U	25	22.7	91	23.2	93	2	57-126/13
56-23-5	Carbon tetrachloride	1.0 U	25	22.8	91	22.4	90	2	75-125/12
75-34-3	1,1-Dichloroethane	1.0 U	25	24.4	98	24.1	96	1	76-121/13
75-35-4	1,1-Dichloroethylene	1.0 U	25	23.4	94	24.0	96	3	71-128/19
563-58-6	1,1-Dichloropropene	1.0 U	25	24.2	97	23.5	94	3	76-122/12
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	25	21.7	87	21.7	87	0	55-121/33
106-93-4	1,2-Dibromoethane	1.0 U	25	23.4	94	24.1	96	3	69-106/13
107-06-2	1,2-Dichloroethane	1.0 U	25	23.4	94	23.6	94	1	70-111/14
78-87-5	1,2-Dichloropropane	1.0 U	25	24.7	99	24.6	98	0	71-113/12
142-28-9	1,3-Dichloropropane	1.0 U	25	24.2	97	24.2	97	0	69-106/12
594-20-7	2,2-Dichloropropane	1.0 U	25	13.2	53* a	12.9	52* a	2	68-130/14
124-48-1	Dibromochloromethane	1.0 U	25	22.8	91	23.0	92	1	69-104/12
75-71-8	Dichlorodifluoromethane	2.0 U	25	19.4	78	19.7	79	2	28-120/21
156-59-2	cis-1,2-Dichloroethylene	1.0 U	25	23.8	95	23.3	93	2	68-113/13
10061-01-5	cis-1,3-Dichloropropene	1.0 U	25	21.0	84	21.4	86	2	71-111/12
541-73-1	m-Dichlorobenzene	1.0 U	25	21.9	88	22.0	88	0	74-110/12
95-50-1	o-Dichlorobenzene	1.0 U	25	22.3	89	22.4	90	0	72-108/12
106-46-7	p-Dichlorobenzene	1.0 U	25	21.8	87	21.9	88	0	74-110/12
156-60-5	trans-1,2-Dichloroethylene	1.0 U	25	22.3	89	22.0	88	1	70-125/14
10061-02-6	trans-1,3-Dichloropropene	1.0 U	25	21.9	88	21.7	87	1	75-111/12
100-41-4	Ethylbenzene	1.0 U	25	22.6	90	22.5	90	0	75-112/12
591-78-6	2-Hexanone	10 U	125	106	85	106	85	0	60-113/18

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80685-1MS	Z018328.D	1	07/12/11	DR	n/a	n/a	VZ3297
T80685-1MSD	Z018329.D	1	07/12/11	DR	n/a	n/a	VZ3297
T80685-1	Z018327.D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Compound	T80685-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-68-3	Hexachlorobutadiene	1.0 U	25	18.9	76	19.9	80	5	72-123/17
98-82-8	Isopropylbenzene	1.0 U	25	23.2	93	22.8	91	2	75-123/12
99-87-6	p-Isopropyltoluene	1.0 U	25	19.6	78	19.5	78	1	76-116/12
108-10-1	4-Methyl-2-pentanone	10 U	125	123	98	127	102	3	63-115/21
74-83-9	Methyl bromide	1.0 U	25	23.6	94	24.1	96	2	59-132/15
74-87-3	Methyl chloride	1.0 U	25	23.4	94	23.6	94	1	56-150/17
74-95-3	Methylene bromide	1.0 U	25	22.7	91	22.5	90	1	68-114/13
75-09-2	Methylene chloride	5.0 U	25	22.3	89	22.9	92	3	70-113/13
78-93-3	Methyl ethyl ketone	10 U	125	127	102	129	103	2	62-117/21
1634-04-4	Methyl Tert Butyl Ether	1.0 U	25	24.0	96	24.0	96	0	65-113/13
91-20-3	Naphthalene	5.0 U	25	20.6	82	21.0	84	2	53-127/34
103-65-1	n-Propylbenzene	1.0 U	25	21.5	86	21.1	84	2	74-115/12
100-42-5	Styrene	1.0 U	25	21.4	86	22.0	88	3	76-110/11
630-20-6	1,1,1,2-Tetrachloroethane	1.0 U	25	22.0	88	22.5	90	2	72-108/11
71-55-6	1,1,1-Trichloroethane	1.0 U	25	22.7	91	22.1	88	3	76-125/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	25	24.4	98	24.1	96	1	67-110/20
79-00-5	1,1,2-Trichloroethane	1.0 U	25	24.2	97	24.0	96	1	69-107/14
87-61-6	1,2,3-Trichlorobenzene	1.0 U	25	20.1	80	20.6	82	2	51-128/31
96-18-4	1,2,3-Trichloropropane	1.0 U	25	22.3	89	22.0	88	1	55-116/27
120-82-1	1,2,4-Trichlorobenzene	1.0 U	25	19.9	80	20.2	81	1	63-114/21
95-63-6	1,2,4-Trimethylbenzene	1.0 U	25	21.4	86	21.1	84	1	73-111/13
108-67-8	1,3,5-Trimethylbenzene	1.0 U	25	20.7	83	20.8	83	0	74-115/12
127-18-4	Tetrachloroethylene	1.0 U	25	23.0	92	22.2	89	4	77-120/13
108-88-3	Toluene	1.0 U	25	23.9	96	23.6	94	1	77-114/12
79-01-6	Trichloroethylene	1.0 U	25	22.1	88	21.8	87	1	74-117/12
75-69-4	Trichlorofluoromethane	1.0 U	25	23.2	93	23.1	92	0	64-132/18
75-01-4	Vinyl chloride	1.0 U	25	20.6	82	21.2	85	3	64-121/19
1330-20-7	Xylene (total)	3.0 U	75	65.6	87	65.7	88	0	75-111/12
	m,p-Xylene	2.0 U	50	44.2	88	44.1	88	0	75-112/12
95-47-6	o-Xylene	1.0 U	25	21.5	86	21.6	86	0	74-110/11

CAS No.	Surrogate Recoveries	MS	MSD	T80685-1	Limits
1868-53-7	Dibromofluoromethane	96%	95%	98%	79-122%
17060-07-0	1,2-Dichloroethane-D4	92%	93%	92%	75-121%

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80685-1MS	Z018328.D	1	07/12/11	DR	n/a	n/a	VZ3297
T80685-1MSD	Z018329.D	1	07/12/11	DR	n/a	n/a	VZ3297
T80685-1	Z018327.D	1	07/12/11	DR	n/a	n/a	VZ3297

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-5

CAS No.	Surrogate Recoveries	MS	MSD	T80685-1	Limits
2037-26-5	Toluene-D8	101%	102%	110%	87-119%
460-00-4	4-Bromofluorobenzene	94%	95%	94%	80-133%

(a) AZ: M2

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80151-7MS	F036047.D	1	07/12/11	AK	n/a	n/a	VF4331
T80151-7MSD	F036048.D	1	07/12/11	AK	n/a	n/a	VF4331
T80151-7	F036046.D	1	07/12/11	AK	n/a	n/a	VF4331
T80151-7	F036044.D	5	07/12/11	AK	n/a	n/a	VF4331

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-3

CAS No.	Compound	T80151-7 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
100-41-4	Ethylbenzene	0.36	J	25	25.8	102	25.7	101	75-112/12

CAS No.	Surrogate Recoveries	MS	MSD	T80151-7	T80151-7	Limits
1868-53-7	Dibromofluoromethane	112%	113%	109%	113%	79-122%
17060-07-0	1,2-Dichloroethane-D4	108%	109%	102%	105%	75-121%
2037-26-5	Toluene-D8	105%	107%	102%	107%	87-119%
460-00-4	4-Bromofluorobenzene	117%	120%	118%	122%	80-133%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80255-9MS	F036069.D	25	07/13/11	AK	n/a	n/a	VF4332
T80255-9MSD	F036070.D	25	07/13/11	AK	n/a	n/a	VF4332
T80255-9 ^a	F036068.D	25	07/13/11	AK	n/a	n/a	VF4332

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-3

CAS No.	Compound	T80255-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		625	758	121*	752	120*	1	76-118/16
108-88-3	Toluene	ND		625	653	104	649	104	1	77-114/12
1330-20-7	Xylene (total)	ND		1880	1980	106	1950	104	2	75-111/12

CAS No.	Surrogate Recoveries	MS	MSD	T80255-9	Limits
1868-53-7	Dibromofluoromethane	112%	112%	113%	79-122%
17060-07-0	1,2-Dichloroethane-D4	109%	106%	105%	75-121%
2037-26-5	Toluene-D8	101%	101%	102%	87-119%
460-00-4	4-Bromofluorobenzene	113%	116%	121%	80-133%

(a) Reported for QC purposes only.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T80322-6MS	G002883.D	5	07/13/11	JL	n/a	n/a	VG120
T80322-6MSD	G002884.D	5	07/13/11	JL	n/a	n/a	VG120
T80322-6	G002882.D	5	07/13/11	JL	n/a	n/a	VG120

The QC reported here applies to the following samples:

Method: SW846 8260B

T80323-2

CAS No.	Compound	T80322-6 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	125	124	99	119	95	4	76-118/16

CAS No.	Surrogate Recoveries	MS	MSD	T80322-6	Limits
1868-53-7	Dibromofluoromethane	88%	87%	86%	79-122%
17060-07-0	1,2-Dichloroethane-D4	81%	81%	80%	75-121%
2037-26-5	Toluene-D8	98%	96%	98%	87-119%
460-00-4	4-Bromofluorobenzene	94%	94%	95%	80-133%



Gulf Coast

ACCUTEST

LABORATORIES

GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-MB	W6411.D	1	07/07/11	SG	07/07/11	OP19216	EW323

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	5.0	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	1.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	15	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.4	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.83	ug/l	
	3&4-Methylphenol	ND	5.0	1.6	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	6.7	ug/l	
87-86-5	Pentachlorophenol	ND	25	13	ug/l	
108-95-2	Phenol	ND	5.0	0.75	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	5.0	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	1.1	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.6	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
62-53-3	Aniline	ND	5.0	4.6	ug/l	
120-12-7	Anthracene	ND	5.0	1.1	ug/l	
92-87-5	Benzidine	ND	25	6.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.87	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.7	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.4	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	1.6	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.3	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.4	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	4.3	ug/l	
86-74-8	Carbazole	ND	5.0	1.5	ug/l	
218-01-9	Chrysene	ND	5.0	0.98	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.3	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	1.3	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	2.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.3	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-MB	W6411.D	1	07/07/11	SG	07/07/11	OP19216	EW323

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.3	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.4	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.3	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	1.4	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	1.3	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	3.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.6	ug/l	
132-64-9	Dibenzofuran	ND	5.0	1.3	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	1.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.8	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.97	ug/l	
86-73-7	Fluorene	ND	5.0	1.3	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.3	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	5.2	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.8	ug/l	
78-59-1	Isophorone	ND	5.0	1.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
88-74-4	2-Nitroaniline	ND	5.0	1.4	ug/l	
99-09-2	3-Nitroaniline	ND	5.0	3.3	ug/l	
100-01-6	4-Nitroaniline	ND	5.0	2.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.7	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.97	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.4	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.7	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.97	ug/l	
129-00-0	Pyrene	ND	5.0	1.7	ug/l	
110-86-1	Pyridine	ND	5.0	0.99	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	

Method Blank Summary

Page 3 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-MB	W6411.D	1	07/07/11	SG	07/07/11	OP19216	EW323

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	32% 10-66%
4165-62-2	Phenol-d5	24% 10-53%
118-79-6	2,4,6-Tribromophenol	74% 32-128%
4165-60-0	Nitrobenzene-d5	64% 29-115%
321-60-8	2-Fluorobiphenyl	71% 34-113%
1718-51-0	Terphenyl-d14	81% 12-145%

Blank Spike Summary

Page 1 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-BS	W6396.D	1	07/07/11	SG	07/07/11	OP19216	EW322

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	50	10.5	21	10-68
95-57-8	2-Chlorophenol	50	31.5	63	39-93
59-50-7	4-Chloro-3-methyl phenol	50	37.6	75	43-109
120-83-2	2,4-Dichlorophenol	50	34.6	69	42-106
105-67-9	2,4-Dimethylphenol	50	32.8	66	27-87
51-28-5	2,4-Dinitrophenol	50	23.3	47	43-107
534-52-1	4,6-Dinitro-o-cresol	50	36.2	72	47-112
95-48-7	2-Methylphenol	50	28.9	58	25-84
	3&4-Methylphenol	100	52.8	53	25-77
88-75-5	2-Nitrophenol	50	34.2	68	38-96
100-02-7	4-Nitrophenol	50	16.9	34	13-70
87-86-5	Pentachlorophenol	50	42.6	85	46-153
108-95-2	Phenol	50	16.7	33	10-53
95-95-4	2,4,5-Trichlorophenol	50	42.7	85	40-101
88-06-2	2,4,6-Trichlorophenol	50	38.7	77	41-102
83-32-9	Acenaphthene	50	38.5	77	41-110
208-96-8	Acenaphthylene	50	37.3	75	49-113
62-53-3	Aniline	50	31.9	64	24-132
120-12-7	Anthracene	50	51.1	102	59-105
56-55-3	Benzo(a)anthracene	50	44.9	90	64-112
50-32-8	Benzo(a)pyrene	50	39.0	78	62-116
205-99-2	Benzo(b)fluoranthene	50	39.2	78	62-114
191-24-2	Benzo(g,h,i)perylene	50	41.6	83	55-124
207-08-9	Benzo(k)fluoranthene	50	56.7	113	62-119
101-55-3	4-Bromophenyl phenyl ether	50	47.1	94	56-99
85-68-7	Butyl benzyl phthalate	50	47.5	95	52-125
100-51-6	Benzyl Alcohol	50	32.4	65	28-83
91-58-7	2-Chloronaphthalene	50	36.5	73	42-97
106-47-8	4-Chloroaniline	50	35.1	70	37-128
86-74-8	Carbazole	50	47.7	95	59-142
218-01-9	Chrysene	50	46.5	93	67-112
111-91-1	bis(2-Chloroethoxy)methane	50	33.8	68	38-96
111-44-4	bis(2-Chloroethyl)ether	50	30.9	62	37-91
108-60-1	bis(2-Chloroisopropyl)ether	50	31.2	62	36-102
7005-72-3	4-Chlorophenyl phenyl ether	50	39.4	79	48-101
95-50-1	1,2-Dichlorobenzene	50	31.2	62	33-86

Blank Spike Summary

Page 2 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-BS	W6396.D	1	07/07/11	SG	07/07/11	OP19216	EW322

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
122-66-7	1,2-Diphenylhydrazine	50	48.3	97	39-118
541-73-1	1,3-Dichlorobenzene	50	28.9	58	21-88
106-46-7	1,4-Dichlorobenzene	50	29.8	60	31-86
121-14-2	2,4-Dinitrotoluene	50	43.7	87	55-112
606-20-2	2,6-Dinitrotoluene	50	42.6	85	57-105
91-94-1	3,3'-Dichlorobenzidine	50	43.7	87	50-142
53-70-3	Dibenzo(a,h)anthracene	50	41.1	82	55-123
132-64-9	Dibenzofuran	50	38.6	77	45-99
84-74-2	Di-n-butyl phthalate	50	52.0	104	64-114
117-84-0	Di-n-octyl phthalate	50	45.0	90	55-118
84-66-2	Diethyl phthalate	50	46.6	93	52-113
131-11-3	Dimethyl phthalate	50	41.3	83	38-112
117-81-7	bis(2-Ethylhexyl)phthalate	50	49.7	99	56-131
206-44-0	Fluoranthene	50	50.6	101	62-116
86-73-7	Fluorene	50	41.7	83	47-99
118-74-1	Hexachlorobenzene	50	45.1	90	62-102
87-68-3	Hexachlorobutadiene	50	30.2	60	37-91
77-47-4	Hexachlorocyclopentadiene	50	36.3	73	23-102
67-72-1	Hexachloroethane	50	28.3	57	33-86
193-39-5	Indeno(1,2,3-cd)pyrene	50	40.0	80	52-126
78-59-1	Isophorone	50	37.9	76	42-105
90-12-0	1-Methylnaphthalene	50	33.0	66	35-89
91-57-6	2-Methylnaphthalene	50	32.7	65	36-91
88-74-4	2-Nitroaniline	50	40.5	81	49-109
99-09-2	3-Nitroaniline	50	39.6	79	46-139
100-01-6	4-Nitroaniline	50	41.8	84	73-174
91-20-3	Naphthalene	50	32.8	66	37-89
98-95-3	Nitrobenzene	50	35.3	71	42-97
62-75-9	n-Nitrosodimethylamine	50	20.0	40	16-63
621-64-7	N-Nitroso-di-n-propylamine	50	36.9	74	42-102
86-30-6	N-Nitrosodiphenylamine	50	39.9	80	64-119
85-01-8	Phenanthrene	50	44.7	89	59-103
129-00-0	Pyrene	50	47.0	94	58-110
110-86-1	Pyridine	50	16.9	34	10-63
120-82-1	1,2,4-Trichlorobenzene	50	28.6	57	37-88

Blank Spike Summary

Page 3 of 3

Job Number: T80323

Account: CONOCO Conoco Phillips

Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-BS	W6396.D	1	07/07/11	SG	07/07/11	OP19216	EW322

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	10-66%
4165-62-2	Phenol-d5	33%	10-53%
118-79-6	2,4,6-Tribromophenol	105%	32-128%
4165-60-0	Nitrobenzene-d5	74%	29-115%
321-60-8	2-Fluorobiphenyl	80%	34-113%
1718-51-0	Terphenyl-d14	110%	12-145%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-MS	W6438.D	1	07/08/11	SG	07/07/11	OP19216	EW324
OP19216-MSD	W6439.D	1	07/08/11	SG	07/07/11	OP19216	EW324
T80323-1	W6446.D	1	07/08/11	SG	07/07/11	OP19216	EW324

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Compound	T80323-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		106	104	98*	81.2	76*	25	10-68/27
95-57-8	2-Chlorophenol	ND		106	49.2	46	29.7	28*	49*	39-93/28
59-50-7	4-Chloro-3-methyl phenol	ND		106	54.8	52	62.6	59	13	43-109/28
120-83-2	2,4-Dichlorophenol	ND		106	48.7	46	40.5	38*	18	42-106/25
105-67-9	2,4-Dimethylphenol	ND		106	49.4	46	37.8	36	27*	27-87/26
51-28-5	2,4-Dinitrophenol	ND		106	64.7	61	61.2	58	6	43-107/44
534-52-1	4,6-Dinitro-o-cresol	ND		106	63.4	60	48.9	46*	26*	47-112/24
95-48-7	2-Methylphenol	ND		106	48.2	45	37.9	36	24	25-84/31
	3&4-Methylphenol	ND		213	98.0	46	79.5	37	21	25-77/25
88-75-5	2-Nitrophenol	ND		106	47.5	45	38.6	36*	21	38-96/26
100-02-7	4-Nitrophenol	ND		106	37.4	35	35.8	34*	4	13-70/25
87-86-5	Pentachlorophenol	ND		106	71.2	67	61.8	58	14	46-153/18
108-95-2	Phenol	4.2	J	106	50.2	43	27.6	22	58*	10-53/35
95-95-4	2,4,5-Trichlorophenol	ND		106	69.1	65	53.2	50	26*	40-101/22
88-06-2	2,4,6-Trichlorophenol	ND		106	63.6	60	47.4	45	29*	41-102/22
83-32-9	Acenaphthene	ND		106	49.2	46	44.5	42	10	41-110/21
208-96-8	Acenaphthylene	ND		106	50.0	47*	45.0	42*	11	49-113/23
62-53-3	Aniline	ND		106	20.8	20*	16.4	15*	24	24-132/44
120-12-7	Anthracene	ND		106	56.0	53*	55.9	53*	0	59-105/18
56-55-3	Benzo(a)anthracene	ND		106	62.6	59*	59.3	56*	5	64-112/20
50-32-8	Benzo(a)pyrene	ND		106	54.1	51*	55.1	52*	2	62-116/23
205-99-2	Benzo(b)fluoranthene	ND		106	60.0	56*	64.7	61*	8	62-114/22
191-24-2	Benzo(g,h,i)perylene	ND		106	62.5	59	57.0	54*	9	55-124/36
207-08-9	Benzo(k)fluoranthene	ND		106	75.0	70	81.6	77	8	62-119/30
101-55-3	4-Bromophenyl phenyl ether	ND		106	57.7	54*	51.6	49*	11	56-99/20
85-68-7	Butyl benzyl phthalate	ND		106	69.6	65	55.5	52	23	52-125/25
100-51-6	Benzyl Alcohol	ND		106	51.0	48	41.7	39	20	28-83/32
91-58-7	2-Chloronaphthalene	ND		106	57.7	54	42.1	40*	31*	42-97/27
106-47-8	4-Chloroaniline	ND		106	29.6	28*	29.2	27*	1	37-128/29
86-74-8	Carbazole	ND		106	51.0	48*	51.4	48*	1	59-142/19
218-01-9	Chrysene	ND		106	67.8	64*	64.9	61*	4	67-112/19
111-91-1	bis(2-Chloroethoxy)methane	ND		106	43.7	41	31.0	29*	34*	38-96/30
111-44-4	bis(2-Chloroethyl)ether	ND		106	45.1	42	23.8	22*	62*	37-91/33
108-60-1	bis(2-Chloroisopropyl)ether	ND		106	57.0	54	35.1	33*	48*	36-102/32
7005-72-3	4-Chlorophenyl phenyl ether	ND		106	55.5	52	51.8	49	7	48-101/21
95-50-1	1,2-Dichlorobenzene	ND		106	48.4	45	39.9	38	19	33-86/29

Matrix Spike/Matrix Spike Duplicate Summary

Page 2 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-MS	W6438.D	1	07/08/11	SG	07/07/11	OP19216	EW324
OP19216-MSD	W6439.D	1	07/08/11	SG	07/07/11	OP19216	EW324
T80323-1	W6446.D	1	07/08/11	SG	07/07/11	OP19216	EW324

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Compound	T80323-1 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
122-66-7	1,2-Diphenylhydrazine	ND		106	44.9	42	34.1	32	30-122/34
541-73-1	1,3-Dichlorobenzene	ND		106	47.5	45	38.8	36	32-88/32
106-46-7	1,4-Dichlorobenzene	ND		106	48.7	46	40.2	38	31-86/36
121-14-2	2,4-Dinitrotoluene	ND		106	52.4	49*	49.8	47*	55-112/23
606-20-2	2,6-Dinitrotoluene	ND		106	51.5	48*	47.6	45*	57-105/23
91-94-1	3,3'-Dichlorobenzidine	ND		106	22.0	21*	27.1	25*	50-142/21
53-70-3	Dibenzo(a,h)anthracene	ND		106	61.5	58	58.2	55	55-123/37
132-64-9	Dibenzofuran	ND		106	49.8	47	46.2	43*	45-99/20
84-74-2	Di-n-butyl phthalate	ND		106	53.2	50*	54.1	51*	64-114/16
117-84-0	Di-n-octyl phthalate	ND		106	64.2	60	48.4	45*	55-118/25
84-66-2	Diethyl phthalate	ND		106	57.1	54	54.0	51*	52-113/20
131-11-3	Dimethyl phthalate	ND		106	54.6	51	50.5	47	38-112/19
117-81-7	bis(2-Ethylhexyl)phthalate	ND		106	71.2	67	57.5	54*	56-131/19
206-44-0	Fluoranthene	ND		106	57.2	54*	44.4	42*	62-116/24
86-73-7	Fluorene	ND		106	56.2	53	52.2	49	47-99/22
118-74-1	Hexachlorobenzene	ND		106	58.0	55*	49.1	46*	62-102/21
87-68-3	Hexachlorobutadiene	ND		106	49.6	47	43.1	41	37-91/28
77-47-4	Hexachlorocyclopentadiene	ND		106	71.6	67	54.4	51	23-102/34
67-72-1	Hexachloroethane	ND		106	48.9	46	39.7	37	33-86/30
193-39-5	Indeno(1,2,3-cd)pyrene	ND		106	61.6	58	56.6	53	52-126/30
78-59-1	Isophorone	ND		106	48.3	45	33.9	32*	42-105/28
90-12-0	1-Methylnaphthalene	1.4	J	106	49.6	45	54.5	50	35-89/25
91-57-6	2-Methylnaphthalene	2.2	J	106	50.8	46	55.2	50	36-91/29
88-74-4	2-Nitroaniline	ND		106	41.0	39*	38.4	36*	49-109/22
99-09-2	3-Nitroaniline	ND		106	18.9	18*	20.8	20*	46-139/23
100-01-6	4-Nitroaniline	ND		106	39.7	37*	39.8	37*	73-174/24
91-20-3	Naphthalene	3.7	J	106	54.7	48	46.4	40	37-89/24
98-95-3	Nitrobenzene	ND		106	47.6	45	47.4	45	42-97/26
62-75-9	n-Nitrosodimethylamine	ND		106	38.6	36	26.0	24	16-63/28
621-64-7	N-Nitroso-di-n-propylamine	ND		106	51.4	48	45.8	43	42-102/27
86-30-6	N-Nitrosodiphenylamine	ND		106	49.6	47*	38.7	36*	64-119/27
85-01-8	Phenanthrene	ND		106	52.4	49*	51.5	48*	59-103/19
129-00-0	Pyrene	ND		106	51.5	48*	60.2	57*	58-110/25
110-86-1	Pyridine	ND		106	18.7	18	13.7	13	10-63/48
120-82-1	1,2,4-Trichlorobenzene	ND		106	43.1	41	37.4	35*	37-88/23

Matrix Spike/Matrix Spike Duplicate Summary

Page 3 of 3

Job Number: T80323
Account: CONOCO Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP19216-MS	W6438.D	1	07/08/11	SG	07/07/11	OP19216	EW324
OP19216-MSD	W6439.D	1	07/08/11	SG	07/07/11	OP19216	EW324
T80323-1	W6446.D	1	07/08/11	SG	07/07/11	OP19216	EW324

The QC reported here applies to the following samples:

Method: SW846 8270C

T80323-1, T80323-2, T80323-4

CAS No.	Surrogate Recoveries	MS	MSD	T80323-1	Limits
367-12-4	2-Fluorophenol	29%	33%	29%	10-66%
4165-62-2	Phenol-d5	37%	21%	26%	10-53%
118-79-6	2,4,6-Tribromophenol	66%	52%	66%	32-128%
4165-60-0	Nitrobenzene-d5	45%	46%	34%	29-115%
321-60-8	2-Fluorobiphenyl	58%	43%	47%	34-113%
1718-51-0	Terphenyl-d14	65%	68%	74%	12-145%



Gulf Coast

ACCUTEST

LABORATORIES

Metals Analysis



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: T80323
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15190
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

07/07/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	16	17		
Antimony	5.0	2.3	3		
Arsenic	5.0	1.8	2	-0.90	<5.0
Barium	200	.14	2.7	0.35	<200
Beryllium	5.0	.11	.2		
Boron	100	1.1	2.1		
Cadmium	4.0	.25	.3	0.030	<4.0
Calcium	5000	5.4	35	13.7	<5000
Chromium	10	1.1	1.9	-0.14	<10
Cobalt	50	.5	.8		
Copper	25	.58	5.9		
Iron	100	13	13	-7.3	<100
Lead	3.0	1.6	1.7	-0.54	<3.0
Magnesium	5000	6.7	7.8	-0.39	<5000
Manganese	15	.2	7.6	0.35	<15
Molybdenum	10	.96	1.3		
Nickel	40	.95	3.2		
Potassium	5000	53	53		
Selenium	5.0	3.2	3.2	0.64	<5.0
Silver	10	.85	.8	-0.68	<10
Sodium	5000	130	130	-92	<5000
Strontium	20	.17	.4		
Thallium	10	3.2	2.6		
Tin	20	1.8	2.9		
Titanium	20	.3	.3		
Vanadium	50	.6	.6		
Zinc	20	.49	4.1		

Associated samples MP15190: T80323-1F, T80323-2F, T80323-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T80323
 Account: CONOCO - Conoco Phillips
 Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15190
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date:

07/07/11

07/07/11

Metal	T80323-1F Original DUP		RPD	QC Limits	T80323-1F Original MS		Spikelot MPTW4	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic	2.2	2.1	4.7	0-20	2.2	398	400	99.0	80-120
Barium	145	146	0.7	0-20	145	572	400	106.8	80-120
Beryllium									
Boron									
Cadmium	0.0	0.0	NC	0-20	0.0	399	400	99.8	80-120
Calcium	8180	8230	0.6	0-20	8180	58100	50000	99.8	80-120
Chromium	0.0	0.0	NC	0-20	0.0	403	400	100.8	80-120
Cobalt									
Copper									
Iron	32.6	33.3	2.1	0-20	32.6	50500	50000	100.9	80-120
Lead	0.0	0.0	NC	0-20	0.0	405	400	101.3	80-120
Magnesium	59400	59700	0.5	0-20	59400	111000	50000	103.2	80-120
Manganese	10.3	9.9	4.0	0-20	10.3	417	400	101.7	80-120
Molybdenum									
Nickel									
Potassium									
Selenium	0.0	0.0	NC	0-20	0.0	409	400	102.3	80-120
Silver	0.0	0.0	NC	0-20	0.0	422	400	105.5	80-120
Sodium	838000	926000	0.9	0-20	838000	1030000	50000	192.0(a)	80-120
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP15190: T80323-1F, T80323-2F, T80323-4F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T80323
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15190
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date:

07/07/11

Metal	T80323-1F Original MSD		SpikeLot MPTW4 % Rec		MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	2.2	385	400	95.7	3.3	20
Barium	145	544	400	99.8	5.0	20
Beryllium						
Boron						
Cadmium	0.0	385	400	96.3	3.6	20
Calcium	8180	55500	50000	94.6	4.6	20
Chromium	0.0	386	400	96.5	4.3	20
Cobalt						
Copper						
Iron	32.6	48500	50000	96.9	4.0	20
Lead	0.0	390	400	97.5	3.8	20
Magnesium	59400	105000	50000	91.2	5.6	20
Manganese	10.3	398	400	96.9	4.7	20
Molybdenum						
Nickel						
Potassium						
Selenium	0.0	396	400	99.0	3.2	20
Silver	0.0	411	400	102.8	2.6	20
Sodium	838000	1000000	50000	132.0(a)	3.0	20
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP15190: T80323-1F, T80323-2F, T80323-4F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T80323
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15190
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/07/11

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	396	400	99.0	80-120
Barium	418	400	104.5	80-120
Beryllium				
Boron				
Cadmium	402	400	100.5	80-120
Calcium	50600	50000	101.2	80-120
Chromium	407	400	101.8	80-120
Cobalt				
Copper				
Iron	51100	50000	102.2	80-120
Lead	404	400	101.0	80-120
Magnesium	49500	50000	99.0	80-120
Manganese	407	400	101.8	80-120
Molybdenum				
Nickel				
Potassium				
Selenium	405	400	101.3	80-120
Silver	406	400	101.5	80-120
Sodium	50400	50000	100.8	80-120
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15190: T80323-1F, T80323-2F, T80323-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: T80323
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

QC Batch ID: MP15190
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 07/07/11

Metal	T80323-1F Original SDL 1:5		%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	2.21	0.00	100.0(a)	0-10
Barium	145	147	1.0	0-10
Beryllium				
Boron				
Cadmium	0.00	0.00	NC	0-10
Calcium	8180	8230	0.6	0-10
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron	32.6	0.00	100.0(a)	0-10
Lead	0.00	0.00	NC	0-10
Magnesium	59400	59400	0.0	0-10
Manganese	10.3	10.4	0.9	0-10
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	838000	940000	0.6	0-10
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP15190: T80323-1F, T80323-2F, T80323-4F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).



Gulf Coast

ACCUTEST®

LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80323
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	RL	ME Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO ₃	GN32859	5.0	3.0	mg/l	2500	2480	99.0	80-120%
Chemical Oxygen Demand	GP13853/GN32897	20	0.0	mg/l	60	58.3	97.2	90-110%
Chloride	GP13827/GN32848	0.50	0.0	mg/l	10	9.61	96.1	90-110%
Chloride	GP13841/GN32887	0.50	0.0	mg/l	10	9.29	92.9	90-110%
Nitrogen, Nitrate	GP13812/GN32866	0.50	0.0	mg/l	10	9.01	90.1	90-110%
Nitrogen, Nitrite	GP13812/GN32866	0.50	0.0	mg/l	10	9.45	94.5	90-110%
Solids, Total Dissolved	GN32711	10	0.0	mg/l	500	488	97.6	80-120%
Solids, Total Dissolved	GN32756	10	0.0	mg/l	500	472	94.4	80-120%
Sulfate	GP13812/GN32866	0.50	0.0	mg/l	10	9.38	93.8	90-110%
Sulfate	GP13827/GN32848	0.50	0.0	mg/l	10	9.55	95.5	90-110%
Sulfate	GP13841/GN32887	0.50	0.0	mg/l	10	9.76	97.6	90-110%

Associated Samples:

Batch GN32711: T80323-1
Batch GN32756: T80323-2, T80323-4
Batch GN32859: T80323-1, T80323-2, T80323-4
Batch GP13812: T80323-1, T80323-2, T80323-4
Batch GP13827: T80323-1, T80323-2, T80323-4
Batch GP13841: T80323-4
Batch GP13853: T80323-1, T80323-2, T80323-4
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80323
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN32859	T79984-1	mg/l	320	99.0	0.0	0-10%
Chemical Oxygen Demand	GP13853/GN32897	T80117-3	mg/l	32.3	28.3	13.2	0-20%
Chloride	GP13827/GN32848	T80117-3	mg/l	27.8	27.9	0.4	0-20%
Chloride	GP13841/GN32887	T80131-9	mg/l	592	590	0.3	0-20%
Nitrogen, Nitrate	GP13812/GN32866	T80323-1	mg/l	0.74	0.72	2.7	0-20%
Nitrogen, Nitrite	GP13812/GN32866	T80323-1	mg/l	0.0	0.0	0.0	0-20%
Solids, Total Dissolved	GN32711	T80268-4	mg/l	1250	1260	0.8	0-5%
Solids, Total Dissolved	GN32756	T80106-2	mg/l	894	887	0.8	0-5%
Sulfate	GP13812/GN32866	T80323-1	mg/l	1.5	1.5	0.0	0-20%
Sulfate	GP13827/GN32848	T80117-3	mg/l	45.3	45.0	0.7	0-20%
Sulfate	GP13841/GN32887	T80131-9	mg/l	109	111	1.8	0-20%
pH	GN32815	T80735-1	su	8.35	8.35	0.0	0-6.8%

Associated Samples:

Batch GN32711: T80323-1
Batch GN32756: T80323-2, T80323-4
Batch GN32815: T80323-1, T80323-2, T80323-4
Batch GN32859: T80323-1, T80323-2, T80323-4
Batch GP13812: T80323-1, T80323-2, T80323-4
Batch GP13827: T80323-1, T80323-2, T80323-4
Batch GP13841: T80323-4
Batch GP13853: T80323-1, T80323-2, T80323-4
(*) Outside of QC limits

7.2
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T80323
Account: CONOCO - Conoco Phillips
Project: CRA: Wingate Fractionating Plant

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN32859	T79984-1	mg/l	320	25	123	96.0	79-122%
Chemical Oxygen Demand	GP13853/GN32897	T80117-3	mg/l	32.3	60	90.4	96.8	90-110%
Chloride	GP13827/GN32848	T80117-3	mg/l	27.8	50	74.3	93.0	80-120%
Chloride	GP13841/GN32887	T80131-9	mg/l	592	1000	1520	92.8	80-120%
Nitrogen, Nitrate	GP13812/GN32866	T80323-1	mg/l	0.74	10	9.2	84.6	80-120%
Nitrogen, Nitrite	GP13812/GN32866	T80323-1	mg/l	0.0	10	8.9	89.0	80-120%
Sulfate	GP13812/GN32866	T80323-1	mg/l	1.5	10	10.9	94.0	80-120%
Sulfate	GP13827/GN32848	T80117-3	mg/l	45.3	50	95.0	99.4	80-120%
Sulfate	GP13841/GN32887	T80131-9	mg/l	109	1000	1070	96.1	80-120%

Associated Samples:

Batch GN32859: T80323-1, T80323-2, T80323-4

Batch GP13812: T80323-1, T80323-2, T80323-4

Batch GP13827: T80323-1, T80323-2, T80323-4

Batch GP13841: T80323-4

Batch GP13853: T80323-1, T80323-2, T80323-4

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.3
7



COVER LETTER

Tuesday, July 05, 2011

Hoy Bryson
Conestoga Rovers and Associates
6121 Indian School Rd NE
Suite 200
Albuquerque, NM 87110

TEL: (505) 975-2563
FAX

RE: Conoco Phillips Wingate Fractionating Plant

Order No.: 1106B53

Dear Hoy Bryson:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 6/28/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682



Hall Environmental Analysis Laboratory, Inc.

Date: 05-Jul-11

Analytical Report

CLIENT: Conestoga Rovers and Associates

Client Sample ID: GW-075006-062811-CFM-001

Lab Order: 1106B53

Collection Date: 6/28/2011 11:30:00 AM

Project: Conoco Phillips Wingate Fractionating Plant

Date Received: 6/28/2011

Lab ID: 1106B53-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: MAW
Total Coliform	< 1	1.0		CFU/100ml	1	6/29/2011 5:10:00 PM
E. Coll	< 1	1.0		CFU/100ml	1	6/29/2011 5:10:00 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Jul-11

Analytical Report

CLIENT: Conestoga Rovers and Associates Client Sample ID: SW-075006-062811-CFM-002
Lab Order: 1106B53 Collection Date: 6/28/2011 11:50:00 AM
Project: Conoco Phillips Wingate Fractionating Plant Date Received: 6/28/2011
Lab ID: 1106B53-02 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: MAW
Total Coliform	> 2419.6	1.0		CFU/100ml	1	6/29/2011 5:10:00 PM
E. Coli	< 1	1.0		CFU/100ml	1	6/29/2011 5:10:00 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
NC Non-Chlorinated	ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit	S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Jul-11

Analytical Report

CLIENT: Conestoga Rovers and Associates

Client Sample ID: SW-075006-062811-CFM-003

Lab Order: 1106B53

Collection Date: 6/28/2011 12:30:00 PM

Project: Conoco Phillips Wingate Fractionating Plant

Date Received: 6/28/2011

Lab ID: 1106B53-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: MAW
Total Coliform	< 1	1.0		CFU/100ml	1	6/29/2011 5:10:00 PM
E. Coli	< 1	1.0		CFU/100ml	1	6/29/2011 5:10:00 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name CONESTOGA ROVERS AND

Date Received:

6/28/2011

Work Order Number 1106B53

Received by: AMF

Sample ID labels checked by:

Initials

Checklist completed by:

Signature

Date

Matrix:

Carrier name: Client drop-off

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☐

Not Shipped ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

6.0°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

[illegible][illegible]

HALL ENVIRONMENTAL ANALYSIS LABORATORY

envy www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

[illegible]

Remarks:

Received by: <i>[Signature]</i>	Date: 6/22/11	Time: 16:10
Received by: <i>[Signature]</i>	Date:	Time:

Date: 28-11	Time: 12:10	Relinquished by: Kelly E. Blanchard
Date:	Time:	Relinquished by:



COVER LETTER

Tuesday, July 26, 2011

Hoy Bryson
C R A
6121 Indian School Rd., NE #200
Albuquerque, NM 87110-4166

TEL: (505) 975-2563
FAX

RE: Wingate Plant

Order No.: 1106C27

Dear Hoy Bryson:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 6/30/2011 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued July 07, 2011.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682



Hall Environmental Analysis Laboratory, Inc.

Date: 26-Jul-11

Analytical Report

CLIENT: C R A

Client Sample ID: GW-075006-062911-CFM-005

Lab Order: 1106C27

Collection Date: 6/29/2011 12:40:00 PM

Project: Wingate Plant

Date Received: 6/30/2011

Lab ID: 1106C27-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM 9223B TOTAL COLIFORM						Analyst: MAW
Total Coliform	<1	0	P/A		1	7/1/2011 12:30:00 PM
E. Coli	<1	0	P/A		1	7/1/2011 12:30:00 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Jul-11

Analytical Report

CLIENT: C R A
Lab Order: 1106C27
Project: Wingate Plant
Lab ID: 1106C27-02

Client Sample ID: GW-075006-062911-CFM-006

Collection Date: 6/29/2011 3:00:00 PM

Date Received: 6/30/2011

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: MAW
Total Coliform	<1	1.0		CFU/100ml	1	7/1/2011 12:30:00 PM
E. Coli	<1	1.0		CFU/100ml	1	7/1/2011 12:30:00 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

