December 20, 2013

Erica Bergman
NJDEP – Bureau of Case Management
401 E. State Street – Mail Code 401-05
P.O. Box 420
Trenton, New Jersey 08625

Re: Perfluorinated Compounds Work Plan, West Deptford, New Jersey, Plant; Prepared for Solvay Specialty Polymers USA, LLC by Integral Consulting Inc., November 15, 2013

Dear Ms. Bergman,

We are submitting these comments as a named stakeholder to the Solvay Work Plan process. Enclosed is a report prepared by Peter Demicco of Ground Water Associates for Delaware Riverkeeper Network (DRN) ("Demicco Report").

We find the Perfluorinated Compounds Work Plan ("Work Plan") deficient. We briefly review our major concerns here and refer you to the Demicco report for technical and specific analysis of the plan's failings.

The Work Plan does not have a worthy objective

The Work Plan states that it will expedite, validate, and report results but makes no commitment to analyze and apply the data to reach a goal of understanding the fate and transport of perfluorinated compounds (PFC) from the facility and its operations. The purpose of the Work Plan should be to investigate the release of PFCs in order to identify exposure of the public and the environment to contamination. The ultimate point should be to clean up the pollution caused by Solvay and the other companies that operated the site since the inception of the use of PFCs at the facility.

The Work Plan is too limited to understand the distribution and fate of PFCs from the Solvay facility operations

> Media: The media proposed to be sampled must be expanded. Critical media include: soil and groundwater samples to validate modeling and on site soils from the manufacturing facility area; private water supplies, small as well as large public water supplies, agricultural and other wells;

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additional onsite monitoring wells based on current Resource Conservation and Recovery Act (RCRA) findings at the facility; sludge or other materials from the remediation of contamination under the ongoing RCRA action on site; sludge from wastewater treatment systems; soils where sludges may have been deposited including stockpiles and spreading on agricultural fields; leachate and/or groundwater from landfills where waste may have been deposited; private and public water wells in Critical Area 2; pathways from the incinerator that was used; dredge material from the proximate Delaware River that is deposited on the property and the groundwater beneath the dredge spoils; and sediment and core sampling downstream of industrial manufacturing area on Little Mantua Creek. Without investigation of these additional media the Work Plan has little practical value and accurate conclusions cannot be drawn.

Air dispersion and deposition model: The expanse to be included in the model is too small to yield reliable results. The region spanning from Solvay to Monroe Township municipal wells and also to New Jersey American wells to the south identified in the Demicco Report must be included in the model. Additionally, soil sampling and private as well as public water supply sampling must be done within these spanned regions and on the Solvay facility site to verify the model. This region encompasses 16 miles in one direction (south and east) and 9 miles in the other direction (south and west), respectively. Furthermore, if data from water sampling in other directions or regions show the presence of PFCs (and specifically Perfluorononanoate acid (PFNA)), these other regions must also be included in the sampling regime.

Complex and dynamic conditions: Over time, environmental exposure to PFCs from the Solvay facility and its operations has changed and will continue to change. The forces of weather and human manipulation of the environment such as construction, river and stream dredging, the stockpiling of spoils or residues from facility operations, the pumping of groundwater for on site or off site remedial activities (including the onsite groundwater treatment system), and discharges to surface waters are some of the activities that have and will continue to impose changes of the distribution of PFCs by Solvay.

These changes result in soil disturbance, soil erosion, sedimentation and stormwater runoff, changes to vegetation and land cover, concentration and synergistic mixing of elements, groundwater flow alterations, new emissions to air and deposition on water and soil, and variations in quality, flow and hydrologic regime of surface waters and connected water features such as wetlands. These dynamic conditions can be reasonably predicted and modeled with a goal of tracking PFCs to understand changes in exposure and resulting health and environmental effects. For instance, age analysis of sediment that is sampled, a groundwater flow and transport model, and other rigorous analytical mechanisms must be employed.

The presence of PFCs and the extraordinarily high levels of PFNA found in Paulsboro's water supply militate for urgent but thorough action to identify the extent of exposure of the public and the environment to contamination. The raw water sampled in 2009 at 96 ng/L in Paulsboro and the even more shocking level of 140 ng/L in raw water and 150 ng/L in finished water in the Paulsboro drinking water system (Items # 2954 and 2966 respectively, NJDEP database entitled "OPRA NJDEP WQ Copy of PFC all data dated 12-10-2013" received 12.17.2013 through Delaware Riverkeeper Network OPRA request) require immediate attention. Those who are drinking water delivered through the Paulsboro water system are unaware of the

presence of this dangerous chemical in their drinking water. This lack of public information should be immediately rectified by NJDEP. We also request that the Work Plan and all comments be made public.

We understand it is the responsibility of NJDEP to advise and guide Paulsboro and its residents and we urge swift action to protect public health. Obviously interim treatment measures or the provision of replacement water are urgently critical to eliminate PFCs, including PFNA, from the Paulsboro community's drinking water now. Relevant to this Work Plan, Solvay must revise its objectives as we have advised herein so that it will provide the necessary information for permanent resolution of the drinking water contamination in Paulsboro, at other locations identified in the Demicco report (including West Deptford), and to all water supplies that may been polluted by PFCs from the Solvay facility and operations.

New Jersey led the way nationally several years ago by identifying PFCs as a water quality problem in the state. NJDEP has been working to establish a safe drinking water level for PFOA for several years. DRN has been involved with this issue since the beginning, having performed tap water sampling in Salem County communities which DRN submitted to NJDEP in 2006. NJDEP issued an Occurrence Study for PFOA in New Jersey public drinking water in 2007 and established a PFOA drinking water guidance level of 0.04 ppb based on lifetime health effects. However, progress towards establishing a safe drinking water limit that would require treatment to remove PFCs from the state's drinking water supplies was halted when the Drinking Water Quality Institute (DWQI) held its last public meeting in September 2010.

Several scientific studies on the sources, occurrence, distribution, properties, and health effects of PFCs were available to the DWQI and NJDEP to help inform their analytical process. Many have been published since that time and more continue to be issued by the health and scientific community, including specific information regarding PFNA. In short, the longer carbon chain lengths that characterize PFNA (C9) and other long carbon chain PFCs such as C-11 and C-13 make these PFCs more durable and persistent in the environment. These compounds do not degrade so it is reasonable to conclude that what was released to the groundwater during manufacturing or delivered onto soil or surface water is still present in some media and still poses a substantial human health and environmental risk. This is especially concerning because the scientific literature explains that the PFNA is more toxic at lower doses than shorter carbon chain PFCs.

Delaware Riverkeeper Network concludes that the Work Plan is not adequate, will not provide useful information towards a goal of understanding PFC distribution, fate, and exposures as explained in detail in the Demicco Report. The deficiencies need to be remedied or the results cannot be expected to be reliable. We urge NJDEP to move ahead with its own program of sampling, guidance to water systems and well water owners, regulation and treatment. A revamped Work Plan from Solvay that is based on a goal of understanding and acting to eliminate PFCs from the environment and water should be utilized in this effort. Thank you for the opportunity to submit comments on the Work Plan.

Sincerely,

Maya van Rossum
The Delaware Riverkeeper

Tracy Carluccio
Deputy Director

Enclosure: "Perfluorinated Compounds Work Plan Review", Ground Water Associates, 12.19.2013

Ground Water Associates, LLC

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December 19, 2013

Ms. Tracy Carluccio
Deputy Director
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RE: Perfluorinated Compounds Work Plan Review
Solvay Specialty Polymers USA, LLC
West Deptford, New Jersey Plant

Dear Ms. Carluccio:

Ground Water Associates, LLC has reviewed the Solvay Specialty Polymers USA (Solvay) Perfluorinated Compound Work Plan (Work Plan) prepared by Integral Consulting, Inc. dated November 15, 2013. Perfluorinated compounds (PFC), including notably perfluorononanoic acid (PFNA, a nine carbon chain PFC) and related compounds, have been detected in the Delaware River watershed. Solvay and preceding companies have used PFC, including PFNA, in manufacturing at the facility. The Solvay Work Plan is described as a voluntary program for investigation of PFC releases from the facility.

Work Plan Content

The Work Plan developed for Solvay has four specific media that are being investigated. The sampling plan includes the following:

- Sampling public water supply wells
- Sampling selected on-site monitoring wells at the facility
- Sampling surface water and sediment in the Delaware River
- Developing an air dispersion and deposition model

The objective of the Work Plan is simply stated as evaluating the presence of PFCs in the environmental media to be sampled. Specifically the following statement appears in Section 2.1 Objectives:

> *Solvay is committed to expediting the field sampling events, data validation, and reporting of results to better understand PFC related facts and circumstances as quickly as possible.*

In the section on Data Quality Objectives (DQO) additional statements on objectives are presented as summarized in the Work Plan Table 3. The four sampling media presented above are reiterated. The sampling results will be analyzed for "precision, accuracy completeness, sensitivity

representativeness and comparability (PACSRC)". The Table 3 "Develop a Decision Rule" includes the following statement:

> *If the PACSRC results are satisfactory and the sampling results provide sufficient characterization to meet the project objectives in Section 2.1 (Objectives), no additional work will be performed in this investigation*

In summary, my opinion is that the Work Plan is missing key environmental media that should be investigated. An additional soil and water sampling event will be required after the air dispersion and deposition model is completed. This sampling must include not only soils, but agricultural, domestic, small private, and public non-community water supply wells within the radius of deposition and beyond if detections of PFC's continue. The stated objective of the Work Plan is extremely limiting focusing on analytical accuracy not environmental distribution of the PFC's. A more comprehensive statement to the effect that the objectives are to understand the distribution of PFC's released from the facility and how that distribution will change over time for the assessment of potential environmental exposure, would appear to be more appropriate.

Dispersion of PFC in the Environment

The distribution of PFC in the environment has been detailed in other site investigations for PFCs, most notably in the E. I. DuPont facility in West Virginia. A variety of exposure scenarios have been detailed in those studies (see reference list). The distribution of PFC's in the environment have more potential pathways than the four primary environmental media presented in the Solvay Work Plan.

PFC's have unique properties that allow for wide spread migration in the environment. Primarily, the compounds are extremely stable, are water soluble and have only moderate sorption properties. These properties allow the migration of the chemical through surface soils and into the ground water.

The November 15, 2013 letter from Roux Associates, Inc. presented a spreadsheet of the PFC usage and emissions (attached). The usage and emissions include the following categories: air, water, landfill, products and destroyed.

Air

The Work Plan addresses the air emissions in the proposed air dispersion and deposition model. The extent of the model is stated as "receptors with 500-m spacing between 3 and 5 km of the fence line". The Work Plan does not state that any on-site and off-site soil samples will be obtained to validate the deposition results of the model. The deposition of PFC compounds on the soil becomes a PFC source to other environmental media. Specifically, the deposited PFC are now able to enter into the soil and then ground water. In addition, storm water runoff will also move PFC into streams and rivers. To develop future ground water concentrations in the aquifer, and subsequently future potential exposure from water supply wells, sufficient soil and ground water samples are needed. A single snap shot of current PFC concentrations, particularly in the public supply wells, does not predict future concentration trends, higher or lower.

The total distance of dispersion model appears to be the order of 3 to 5 km. The extent of this model can only be determined to be adequate following sampling verification; verification which is not presented or discussed in the Work Plan. It should be noted that EPA UCMR 3 sampling

included a result for Monroe Township MUA Wells that included a detection of PFNA (attached). This well(s) is at the eastern end of Gloucester County approximately 16 miles southeast of Solvay, a predominant downwind direction. The potential source or sources of PFNA in this well should be included in the Work Plan.

Water

Water emission is believed to represent waste water discharge to the Gloucester County Utility Authority (GCUA) at 2 Paradise Road just to the south of Solvay. The RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725) report for Ausimont, USA Inc. (undated) indicates that inorganic and organic waste streams were pre-treated at the facility prior to discharge to GCUA. It is not known if sludge or other materials derived from this process were collected at the site or disposed of off-site. The nature of the on-site treatment and potential waste streams from this operation should be addressed in the Work Plan. In addition, river samples, SS1015, SS1016 and SS1017 are presented as outfall samples. It is believed that these samples represent the GCUA outfall, although that is not explicitly stated in the Work Plan.

Based on the data included in the spreadsheet, the waste water discharge was the largest emission or utilization of PFC's on the site. The resistance of PFC to degradation will result in the movement of these compounds into the waste streams from the GCUA, which are predominately treated water and sludge. The treated waste water is discharged into the Delaware River system carrying PFC's into the surface water system. The disposition of the sludge, however, was not addressed in the Work Plan. The sludge from the GCUA needs to be considered as an environmental source for further distribution of PFC's into the environment. If the sludge was used for soil amendment, then a new source of PFC to the soil and subsequently the ground water will result. If the sludge was deposited into a landfill, then the potential distribution into the environment now resides in landfill leachate. The disposition of the sludge from the GCUA needs to be evaluated as part of the potential environmental exposure.

The distribution of waste water into the Delaware River system is part of the environmental distribution of PFC. However, once the PFC enters the Delaware River the chemical will remain in the river water or partition into river sediments. However, it should be noted that the Potomac-Raritan-Magothy (PRM) aquifer subcrops below the river. In parts of the aquifer system, water from the Delaware River infiltrates into the aquifer due to depressed head levels from Critical Area 2. Therefore, the PRM aquifer has at least two potential sources for the PFC, the air deposited material that was picked up by infiltrating rainwater and induced infiltration from the Delaware River. If sludge containing PFC was used in the outcrop area of the PRM aquifer, a third potential source of material to the aquifer exists. Over time, these concentrations will change and therefore, exposures change.

Landfill

The Solvay spreadsheet includes emission of PFC's from the site to a landfill. The landfill or landfills that received this material are not discussed in the Work Plan. Yet the landfill(s) become a repository of PFC as illustrated by the spreadsheet. The landfill leachate will potentially pick up the PFC material in the landfill. If the landfill is not secure, the leachate could then enter the ground water environment. If leachate is treated at the landfill, the PFC could again move into a different

medium based on the method of leachate treatment. Tracking of the PFC sent to the landfill(s) should be included as part of the Work Plan to evaluate their distribution and fate.

Products

The amount of material removed as product is illustrated on the spreadsheet. Basically, product is on the order of only 11 percent of the material used in the manufacturing process.

Destroyed

Only a limited amount of material was destroyed by an on-site incinerator. The use of the incinerator on-site is not clear from documents available. The RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725) report for Ausimont, USA Inc. (undated) states that none of the waste streams are listed as hazardous waste, but are classified due to their reactivity, toxicity, and ignitability. If the incinerator is a potential air release source, then it should be incorporated into the air dispersion and deposition model.

Additional Issues

EPA Region 2 has published a short summary of the Solvay Specialty Polymers USA, LLC NJ RCRA Cleanup Fact Sheet dated May 2013. The RPA summary reviews remediation history and states that from 1990 to 1992, soil contamination was cleaned up via excavation and off-site disposal. Some of the soil clean up areas are further documented in the RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725) report for Ausimont, USA Inc. (undated).

The Work Plan for the site does not address the disposition of these materials. Are they a potential source of PFC's in the locations where disposal occurred? PFC's most likely were not analyzed in samples needed for disposal classification. Follow up questions on the possibility that landfilled material may contain PFC's and how secure the disposal sites are from environmental release should be documented as part of the Work Plan.

Dredge material has been removed from the Delaware River and deposited on the northern part of the property. The EPA document (May 2013) reported that the dredge material was capped in 2004. The age of the dredge spoils and possible concentrations of PFC's were not available. However, the Work Plan should address this material for PFC concentration. If the material was dredged in the manufacturing period of the facility, it is a potential PFC source. If the dredge material remains a possible release source then it should be addressed in the Work Plan. The dredge material needs to be evaluated as a source to the shallow ground water both pre and post cap. If releases occur to the shallow ground water within or beneath the dredge material further PFC migration either to river discharge and infiltration into the PRM Aquifer may have or is occurring.

Another potential on-site source that is not fully addressed in the Work Plan is runoff from the manufacturing facility area. On-site soils are not being sampled in the existing Work Plan until, possibly, after the completion of the air dispersion and deposition model. The RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725) report for Ausimont, USA Inc. (undated) includes descriptions of potential sources of spills and soil remediation areas that could produce contaminated runoff. It should be noted that the soil remediation conducted in these areas

of the site typically would not have been testing for PFC at that time. These data gaps in soil concentration and runoff potential should be addressed with the results of the air dispersion and deposition model.

Presented Work Plan

The presented Work Plan included four items listed above.

Municipal Well Sampling

The first part of the Work Plan is the sampling of Municipal Public Supply wells, which appears to be on going during this review period for the Work Plan. The sampling of Public Supply wells is not as straight forward as just grabbing water from the wells at a random time. The pattern of antecedent pumping of the wells will affect the source of water to the wells and therefore, the distribution of PFC concentration. The operational pattern of pumping differs from summer to winter. In winter, wells will be shut off for extended periods. With the addition of New Jersey American Tri-County water coming into this area, wells are shut down for even longer periods that just a few years ago. A plan of sampling should be developed for each Municipality based on the operational history of the well fields. At least one sampling event should be conducted at peak production rates and at seasonal low production rates in each well. The Table 1 (PFC concentrations from samples collected Oct 30, 2013 at the West Deptford MUA) sampling results could easily be affected by seasonal variations in pumping and a finished water sample should have been obtained for Well 3. In each sampling event, samples should be obtained from all wells, after purging, even if the wells have been idle for a substantial length of time including raw and finished water.

Additional New Jersey public supply wells were identified in Post, et al. (2013) that detected PFNA levels near and downriver from Solvay along with PFOA and other PFC's. Site 5 of their report, Paulsboro Water Department, presented a PFNA concentration at 96 ng/l with PFOA at 26 ng/l. Table 2 from the Solvay Work Plan (attached) has values as high as 150 ng/l in finished water.

Two sites downriver, PWS-A and PWS-B, also had detections of PFNA with a detection of 72 ng/l PFNA in PWS-B along with other PFC compounds (see Post, et al. Figure 4 and Table S4, Supporting Information). The source or sources of the down river detections of PFC compounds should be included within the Work Plan. Water supply wells between these wells and Solvay including agricultural, domestic and small public supplies should be tested. Also, the Monroe Township MUA well sample discussed above should be included within the Work Plan although the environmental mechanism for the PFC source will probably be different than the wells near the Delaware River.

Sampling of On-site Monitoring Wells

Sampling of on-site wells is certainly critical data to be obtained. The sampling may identify zones of greatest release from on-site operation and, with ground water elevation data, begin to develop migration pathways. The wells were installed for tracking chlorinated organic compounds which have different partitioning coefficients than PFC. However, the spill sources may be the same. The Work Plan should identify if sources that created the organic contamination would also have had PFC compounds.

Soil sampling on-site, for both the distribution of PFC from potential spills and from air distribution/air deposition are not proposed in the Work Plan. Soil samples are needed to evaluate if further release from soils is or is not a potential long term PFC source.

A ground water treatment system has been installed at the site. The collection of ground water at the site has probably affected on-site distribution of PFC compounds. A single snapshot in time, where historical gradients have been disrupted by ground water pumping will not be able to identify the migration pathways and potential exposures issues as compounds move off-site. With the distances between the site and the Public Supply wells, the relationship between site concentrations and impacts to the public supply wells from on-site contamination may be difficult to link up. In addition, the Public Supply wells may be impacted by air deposited material that infiltrated to ground water, or ground water induced from the Delaware River. Even PFC from sludge could be a source to the wells if it were used locally.

The complexities of the site with potential sources to the public wells from on-site sources, off-site air deposition, infiltration from the river, or other sources (possible land application) makes for a very complex problem to understand the distribution of the PFC's from the site. Sampling from domestic wells, public non community and transient wells, farm irrigation wells or even other contaminated site monitoring wells away from the site will probably be required to fill in data gaps between on-site ground water results and results from the Public Supply wells. Off-site ground water quality data collection was not included in the Work Plan.

There are multiple complexities within the PRM aquifer in the region, including multiple aquifer zones, multiple confining zones, the induced infiltration from the Delaware River, and shifting Public Supply well production. At a minimum, a ground water flow and transport model may be required to understand the PFC distribution once the first sets of data has been collected.

Sampling surface water and sediment in the Delaware River

Sampling of water and sediment is potentially the most complex operation in the proposed Work Plan. The Work Plan states Solvey will be reoccupying locations previously sampled by DRBC. Other sampling locations selected are additional locations in the Delaware River, two locations at local creeks and confluence of the Delaware River, and one location at a nearby publicly owned treatment works (POTW) outfall which is assumed to the GCUA outfall that treated wastewater from the site.

The river system is highly dynamic and sediment shifts constantly. Areas of deposition and erosion exist in relatively close proximity. The age of the sediments and mixing of sediments will be difficult to ascertain during sampling. The Work Plan presents detail on lithologic descriptions to be developed in the section entitled Subsurface Sediment Core Collection Using a Vibracorer. However, the analytical samples will be obtain as straight 6-inch intervals apparently without regard to depositional environments and stratigraphic layering in the cores. Some attempt of age dating of the material would enhance the value of the data collected. The field sampling team should have some discretion on restricting the sampling to single representative sediment layers and not homogenizing multiple layers into a single sample. A more rigorous sampling protocol including age analysis of the sediment is required.

A sampling and core-hole location was proposed at the confluence of the Delaware River and Little Mantua Creek, SS1018 and SS1019. Little Mantua Creek flows along the southern boundary of the Solvay facility. Sediment within Little Mantua Creek would have received surface runoff from the site and received runoff from any potential spills that historically may have occurred at the site. The selected location at the confluence of the creek and the Delaware River would have diluted the concentration in the Little Mantua Creek. Sediment and core sampling should be included in the Little Mantua Creek just downstream from the main industrial manufacturing area.

In addition, dredge spoil piles that postdate the start of PFC manufacturing are a source of these compounds. Dredged spoil piles from the river can be dated by historical records and samples obtained from the post-PFC time period. These spoil piles can provide snap shots in time of PFC distribution. The Work Plan should include sampling from a select few post-PFC manufacturing spoil piles to demonstrate if a source of these compounds exists. These spoil piles are potential sources of PFC that could release back into the environment, both ground water and surface water. Therefore, the river system sampling program should include an inventory of dredge spoil with sampling to identify PFC distribution within the spoils.

Air Dispersion and Deposition Model

The Work Plan presents a proposal to conduct air dispersion and deposition model. As stated above, what is missing is a plan to quantify and verify the results of the model with on-site and off-site soil sampling. Without the sampling verification on deposition, the model will provide little useful data on the distribution of PFC from the site via air distribution.

The occurrence of PFNA at the Monroe Township MUA well, which is 16 miles to the south and east should be addressed in the Work Plan. The Monroe wells are believed to be in a different aquifer, the water table Cohansey aquifer, with no known link to the water and aquifer system at the Solvay facility. PFNA at Monroe Township will require evaluation of air dispersion as a potential source (included within the plan) and verification that GCUA sludge was not used in the area (not included within the plan). Knowing the potential distribution of sludge may result in understanding the source of PFNA at this location remote to Solvay.

In summary, the potential distribution of PFC's from the Solvay facility has been shown to have greater complexities than addressed in the existing sampling Work Plan for this facility. Several additional media for sampling have been identified within this report. Most notable, is the lack of any sampling to verify the air dispersion and deposition model. This sampling would include both soil and multiple types of wells from agricultural, domestic, non-community public and even monitoring wells from other contaminated sites. This sampling is critical to understanding the distribution of PFC's in the PRM aquifer and the Public Supply wells. The second critical item is the disposition of sludge from the GCUA and where this material may have gone. Other items include the distribution of PFC in historical spoils removed from the Delaware River, and the reintroduction of PFC into the river from sediments and other historical repositories of PFC. These items need to be added to the Work Plan to understand PFC distribution, fate, and ultimately exposures.

If you have any questions on this report, please do not hesitate to contact me. We thank you for the opportunity to be of service.

Sincerely,
Ground Water Associates, LLC

Peter M. Demicco, PG
Hydrogeologist

Enclosures:

References and Background Sources:

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USEPA, 2013, Letter from Maria J. Doa, PhD, Director of Chemical Control Division to Mr. Robert A. Bilott, Taft, Stettinius R Hollister LLP, RE: the DuPont MOU Phase III – Future Work Plan Data Assessment: USEPA Office of Chemical Safety and Pollution Prevention, Washington DC, 2 p.

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Attachments

West Deptford Plant PFC Usage and Emissions

Year [a]	Surflon Used [b] (kg)	Surflon Emissions [c] (kg)					NaPFO Used (kg)	NaPFO Emissions [c] (kg)			
		Air [d]	Water [d]	Landfill [e]	Products [d]	Destroyed [f]		Air [d]	Water [d]	Landfill [e]	Products [f]
1991	4,375	1,171	2,624	88	493	0	0	0	0	0	0
1992	3,714	994	2,227	74	418	0	0	0	0	0	0
1993	3,292	881	1,974	66	371	0	0	0	0	0	0
1994	3,940	1,054	2,363	79	444	0	0	0	0	0	0
1995	5,228	1,399	3,135	105	589	0	0	0	0	0	0
1996	5,832	1,561	3,498	117	657	0	429	34	382	9	4
1997	9,098	2,435	5,456	182	1,025	0	1,773	142	1,578	35	18
1998	7,952	2,128	4,769	159	896	0	525	42	467	11	5
1999	6,683	1,788	4,008	134	753	0	2,169	174	1,930	43	22
2000	7,100	1,900	4,258	142	800	0	2,747	220	2,445	55	27
2001	7,953	2,128	4,770	159	896	0	1,547	124	1,377	31	15
2002	7,549	2,020	4,527	151	851	0	878	70	781	18	9
2003	8,226	2,201	4,933	165	927	0	496	40	441	10	5
2004	8,659	2,317	5,193	173	976	0	0	0	0	0	0
2005	6,946	1,859	4,166	139	783	0	0	0	0	0	0
2006	7,081	1,895	4,247	142	798	0	0	0	0	0	0
2007	8,467	2,266	5,078	169	954	0	0	0	0	0	0
2008	6,341	1,697	3,803	127	714	0	0	0	0	0	0
2009	6,462	1,729	3,596	130	727	280	0	0	0	0	0
2010	171	46	106	3	16	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	0	0

Notes:

NaPFO = sodium perfluorooctanoate

[a] Data prior to 1991 during Pennwalt/AtoChem ownership are not available in Solvay Specialty Polymers records.

[b] Usage data are estimated from production and accounting records.

[c] Emissions data are estimated using engineering calculations.

[d] Estimated from analyses of process samples and mass balance equations.

[e] Estimated based on historical patterns of solid waste generation rather than analysis of samples.

[f] Estimated from quantity of liquid waste collected for incineration.

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC
402 Heron Drive
Logan Township, New Jersey 08085 TEL 856-423-8800 FAX 856-241-4670

November 15, 2013

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420

Re: Perfluorocarbon Compound Usage
Solvay West Deptford Plant
10 Leonard Lane
West Deptford, New Jersey 08096

Dear Ms. Bergman:

As the Licensed Site Remediation Professional (LSRP) retained by Solvay Specialty Polymers, I have reviewed the attached Perfluorocarbon Usage spreadsheet (Spreadsheet) for the Solvay West Deptford Plant and I am submitting it on behalf of Solvay Specialty Polymers. Enclosed are three copies of the Spreadsheet for you internal distribution. Please feel free to contact Mitch Gertz with any questions.

Sincerely,

Thomas R. Buggey, LSRP #580659
Principal Hydrogeologist

Cc: Mitch Gertz – Solvay
Phil Goodrum – Integral
Nidal Azzam – USEPA (via email)

Table 2. Concentrations of PFCs Measured in Wells at Paulsboro Water Authority in September 2013

Analyte	Formula	CAS Number	Concentration [a] (µg/L)					
			Well #7 [b]		Well #8 [b]		Well #9 [b]	
			Raw	Finished	Raw	Finished [c]	Raw	Finished [c]
Perfluoroheptanoic acid (PFHpA; C7)	$C_6F_{13}COOH$	375-85-9	0.0038	0.0040	0.0037	0.0040	0.0035	0.0040
Perfluorohexanesulfonic acid (PFHxS; C6)	$C_6F_{13}SO_3H$	355-46-4	0.0044	0.0047	0.0059	0.0061	0.0035	0.0061
Perfluorohexanoic acid (PFHxA; C6)	$C_5F_{11}COOH$	307-24-4	0.0049	0.0050	0.0068	0.0064	0.0085	0.0064
Perfluorononanoic acid (PFNA;C9)	$C_8F_{17}COOH$	375-95-1	0.14	0.15	0.015	0.016	0.0098	0.016
Perfluorooctanesulfonic acid (PFOS; C8)	$C_8F_{17}SO_3H$	1763-23-1	0.0060	0.0074	0.0084	0.0090	0.0040	0.0090
Perfluorooctanoic acid (PFOA;C8)	$C_7F_{15}COOH$	335-67-1	0.032	0.035	0.019	0.018	0.053	0.018

Notes:

CAS = Chemical Abstracts Service registry number

[a] Source file: Adobe Acrobat electronic copy of Eurofins Eaton Analytical - Laboratory Report for QC Laboratories. Samples Received September 18, 2013. Sample Group: Paulsboro PFC, Folder #449989. Analytical Protocol: USEPA Method #537.

[b] Sample Numbers (Raw, Finished): Well #7: 20130910296, 201309190304; Well #8: 201309190305, 201309190307; Well #9: 201309190306, 201309190307.

[c] Results for finished water for Well #8 and Well #9 are reported as a single result (i.e., "#8 + #9 WTP").

Region 2

http://www.epa.gov/region02/waste/fsausimo.htm
Last updated on 6/13/2013

Solvay Specialty Polymers USA LLC

Other (Former) Names of Site - Solvey Solexis, Inc., Ausimont USA Incorporated, National Steel Company (Pennwalt)

EPA Identification Number:	NJD980753875
Facility Location:	10 Leonard Lane, Thorofare, New Jersey 08086
Facility Contact:	Facility Contact: Mitch Gertz: (856) 251-6630
EPA Contact:	Andy Park, 212-637-4184, park.andy@epa.gov
New Jersey Department of Environmental Protection (NJDEP) Case Manager:	Loren Lasky, Loren.Lasky@dep.state.nj.us
Last Updated:	May 2013
Environmental Indicator Status:	Human Exposures Under Control [PDF 771.40 KB, 40 pp] has been verified. Groundwater Contamination Under Control: No status has been reported.

Site Description

The site is located at 10 Leonard Lane, in West Deptford Township, New Jersey, in a mostly industrial setting surrounded by a rural residential area. Pennwalt began operations in the 1970s manufacturing fluorocarbons but the operations ceased in 1977. New operations began in 1985, manufacturing vinylidene fluoride monomers, fluoropolymers and fluorocarbons. The site was sold to Elf Atochem in 1989, subsequently to Ausimont USA, Inc. in 1990, and then to the Solvay Group in 2002. Currently, fluoropolymers, fluorocarbons and fluoroelastomers are manufactured. The operation generates hazardous wastes that are managed under a permit from New Jersey Department of Environmental Protection (NJDEP) for on-site hazardous waste storage and incineration.

Potential Threats and Contaminants

Groundwater and soil contamination at the site resulted from plant operations and management of wastes. Key groundwater contaminants include 111, trichloroethane (and its degradation products, 1,1 dichloroethane, 1,1 dichlorethene), and carbon tetrachloride and its degradation product, chloroform. Metals in groundwater include iron, manganese and aluminum. Soils contamination is below NJDEP direct contact standards for volatile organic compounds. Metals in soil include antimony and nickel.

Cleanup Approach and Progress

From 1990 to 1992, soil contamination was cleaned up via excavation and offsite disposal at a waste disposal facility, followed by backfilling of the excavated areas with clean soil.

In 2004, Solvay installed a soil cap at the dredge spoils area on the site's northern section, which is located outside the manufacturing area. In 2005, Solvay replaced underground process piping with double walled piping to prevent leaks. In April of 2010, Solvay began operation of a groundwater pump and treat system to provide onsite treatment and hydraulic containment of the plume. The treated groundwater is reused in the manufacturing process.

Solvay Specialty Polymers USA LLC is currently investigating the groundwater contamination at the site to determine how far it may extend. The investigation needs to be completed to define the hydrogeology and groundwater contamination and is primarily focused off-site. An appropriate final remedy will be selected based on the contaminant concentration levels, the rate at which the contaminated groundwater is moving and the distance the plume of contaminated water has migrated. Institutional controls (e.g., a Deed Notice for residual soil contamination and a Classification Exception Area for any remaining groundwater contamination) will be imposed at areas with residual contamination. A long-term groundwater monitoring system will be developed to ensure that the groundwater contamination continues to be contained.

Final Cleanup Status or Projection

- Final Remedy Construction (RCRAInfo database code CA550) has not been achieved.

Site Repository

Copies of supporting technical documents and correspondence cited in the site fact sheet are available for public review at the following location:

New Jersey Department of Environmental Protection
Division of Solid & Hazardous Waste
Records Center

PWSID PWSName Size FacilityID FacilityName FacilityWaterType SamplePointID SamplePointName SamplePointType AssociatedFacltyID
AssociatedSamplePointID CollectionDate SampleID Contaminant MRL MethodID AnalyticalResultsSign AnalyticalResultValue SampleEventCode MonitoringRequirement Region
State

CA3310009 Eastern Municipal Water District XL 91806 Well 59 (Indian Ave.) GW 3310009806 EP #82: Well 59 Treated EP 99002 3310009998 6/18/2013 B3F1941-01
PFHpA 0.01 EPA 537 = 0.0220 SE1 AM 09 CA

NJ1604001 Hawthorne Water Department L 06007 N. Station Goffle Field GW TP006007 EPTDS from N. Station Goffle Field EP 14512 DBPMAX 5/22/2013 201305230216AM
PFOA 0.02 EPA 537 = 0.0220 SE1 AM 02 NJ

NC0363108 Moore County Public Utilities - Pinehurst L 40088 EMWD Intertie SW EP003 EPTDS from EMWD Water EP 55195 MR003 5/16/2013 201305170365AM
PFOA 0.02 EPA 537 = 0.0230 SE2 AM 04 NC

NJ1604001 Hawthorne Water Department L 07016 S. Station Tower 1 GW TP007016 Wagaraw Wellfield EP 14512 DBPMAX 5/22/2013 201305230209AM PFOA 0.02 EPA
537 = 0.0230 SE1 AM 02 NJ

NJ1604001 Hawthorne Water Department L 10029 Utter Ave. Treatment GW TP010029 EPTDS from Utter Ave. Treatment EP 14512 DBPMAX 5/22/2013 201305230221AM
PFOA 0.02 EPA 537 = 0.0230 SE1 AM 02 NJ

√√ NJ0811002 Monroe Township MUA L **05014 Wells 8 & 14 TP GW TP005014 Rt. 42 Black Horse Pike EP 15366 DBPMAX 6/26/2013 728296-9243**
PFNA 0.02 EPA 537 = 0.023980 **SE1 AM 02 NJ**

CA3010037 Yorba Linda Water District VL 91805 Highland Reservoir GW 3010037805 EP #12: RES-YLWDHIGHLAND-01 EP 99002 3010037992 1/9/2013 3010037805
PFOA 0.02 EPA 537 = 0.0241 SE1 AM 09 CA

CA3910015 City of Lathrop L 91801 Well 21 GW 3910012801 EP #14: Well 21 Treated EP 99995 3910015995 4/17/2013 A3C1742-01A PFOA
0.02 EPA 537 = 0.0250 SE1 AM 09 CA

NJ0217001 Fair Lawn Water Department L 10027 Dorothy St. TP GW TP010027 EPTDS from Dorothy St. TP EP 14794 DBPMAX 5/28/2013 721812-8985 PFOA
0.02 EPA 537 = 0.0253 SE1 AM 02 NJ

NJ0217001 Fair Lawn Water Department L 05020 Well 28 TP GW TP005020 Treatment House - Well 28 EP 14794 DBPMAX 1/29/2013 703130-8017 PFOA 0.02 EPA
537 = 0.026840 SE1 AM 02 NJ

AL0000588 Rainbow City Utilities Board L 07064 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06014 MR001 4/15/2013 2810100 PFOA
0.02 EPA 537 = 0.03 SE1 AM 04 AL

AL0000591 Southside Waterworks L 08464 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06017 MR001 1/21/2013 2769276 PFOA
0.02 EPA 537 = 0.03 SE1 AM 04 AL

CO0121275 City of Fountain L 00004 Chlorination for Well 4 GW 0004T EPTDS from Chlorination for Well 4 EP 06679 MAXRES4 1/15/2013 2766004 PFOA
0.02 EPA 537 = 0.03 SE1 AM 08 CO

NJ0217001 Fair Lawn Water Department L 02012 Westmoreland TP GW TP002012 EPTDS from Westmoreland TP EP 14794 DBPMAX 7/30/2013 734212-9422 PFOA
0.02 EPA 537 = 0.0304 SE2 AM 02 NJ

NJ0217001 Fair Lawn Water Department L 02012 Westmoreland TP GW TP002012 EPTDS from Westmoreland TP EP 14794 DBPMAX 1/29/2013 703126-7999 PFOA
0.02 EPA 537 = 0.036780 SE1 AM 02 NJ

NY5110526 Suffolk County Water Authority XL 00454 Station Rd. LO Wellfield GW 00454EP Station Rd. #1A EP 01454 01454MR 3/7/2013 201604199 PFHxS
0.03 EPA 537 = 0.0370 SE1 AM 02 NY

AL0000588 Rainbow City Utilities Board L 07064 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06014 MR001 7/22/2013 2864642 PFOA
0.02 EPA 537 = 0.04 SE2 AM 04 AL

AL0000591 Southside Waterworks L 08464 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06017 MR001 4/15/2013 2810419 PFOA
0.02 EPA 537 = 0.04 SE2 AM 04 AL

AL0000591 Southside Waterworks L 08464 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06017 MR001 4/15/2013 2810419 PFOS
0.04 EPA 537 = 0.04 SE2 AM 04 AL

CO0121275 City of Fountain L 00001 Chlorination for Well 1 GW 0001T EPTDS from Chlorination for Well 1 EP 06679 MAXRES1 1/15/2013 2765892 PFOA
0.02 EPA 537 = 0.04 SE1 AM 08 CO

CO0121275 City of Fountain L 00001 Chlorination for Well 1 GW 0001T EPTDS from Chlorination for Well 1 EP 06679 MAXRES1 1/15/2013 2765892 PFOS
0.04 EPA 537 = 0.04 SE1 AM 08 CO

CO0121275 City of Fountain L 00002 Chlorination for Well 2 GW 0002T EPTDS from Chlorination for Well 2 EP 06679 MAXRES2 1/15/2013 2765901 PFOA
0.02 EPA 537 = 0.04 SE1 AM 08 CO

CO0121275 City of Fountain L 00002 Chlorination for Well 2 GW 0002T EPTDS from Chlorination for Well 2 EP 06679 MAXRES2 1/15/2013 2765901 PFOS
0.04 EPA 537 = 0.04 SE1 AM 08 CO

CO0121275 City of Fountain L 00003 Chlorination for Well 3 GW 0003T EPTDS from Chlorination for Well 3 EP 06679 MAXRES3 1/15/2013 2766032 PFHxS
0.03 EPA 537 = 0.04 SE1 AM 08 CO

CO0121275 City of Fountain L 00003 Chlorination for Well 3 GW 0003T EPTDS from Chlorination for Well 3 EP 06679 MAXRES3 1/15/2013 2766032 PFOS
0.04 EPA 537 = 0.04 SE1 AM 08 CO

CO0121275 City of Fountain L 00005 Fountain Valley Authority Intertie SW 00005 EPTDS from Fountain Valley Authority EP 06679 MAXRES5 4/16/2013 2810052
PFOA 0.02 EPA 537 = 0.04 SE2 AM 08 CO

IL1130200 Bloomington VL 90001 Plant on South Side of Dam SW TP01 EPTDS from Plant EP 99001 DBPMAX 3/6/2013 2789589 PFOA 0.02 EPA 537 =
0.04 SE1 AM 05 IL

TX2210001 City of Abilene XL 58563 Northeast Plant SW EP002MC2Sample Site EP 45540 DS012 8/20/2013 739083-9589 PFOS 0.04 EPA 537 =
0.041890 SE3 AM 06 TX

CA1910042 City of Pico Rivera Water Department L 91812 Well 1 GW 1910042812 EP #18: Well 1 Treated EP 99001 1910042990 1/24/2013 440-36162-11
PFOS 0.04 EPA 537 = 0.0420 SE1 AM 09 CA

NC0363108 Moore County Public Utilities - Pinehurst L 00039 Fire Station #1 GW E08 EPTDS from Fire Station #1 EP 99001 MR004 2/27/2013 201302280392AM
PFHxS 0.03 EPA 537 = 0.0420 SE1 AM 04 NC

MA1329000 Westfield Water Department L 00033 Well #7 GW 10516 EPTDS from Well #7 EP 99002 MR004 2/27/2013 3584876005AM PFOA 0.02 EPA 537 =
0.0430 SE1 AM 01 MA

CA1910211 Park Water Company - Bellflower/Norwalk VL 91803 Well 46C GW 1910211803 EP #41: Well 46C Treated EP 99002 1910211992 6/18/2013
201306180128AM PFOS 0.04 EPA 537 = 0.0450 SE1 AM 09 CA

NJ0822001 Woodbury City Water Department L 05011 Redbank Ave. Treatment Wells 7, 8 GW TP005011 Wells 7 & 8 EP 15382 DBPMAX 5/13/2013 719534-8909
PFNA 0.02 EPA 537 = 0.046160 SE1 AM 02 NJ

AL0000588 Rainbow City Utilities Board L 07064 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06014 MR001 4/15/2013 2810100 PFHpA
0.01 EPA 537 = 0.01 SE1 AM 04 AL

AL0000588 Rainbow City Utilities Board L 07064 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06014 MR001 7/22/2013 2864642 PFHpA
0.01 EPA 537 = 0.01 SE2 AM 04 AL

AL0000591 Southside Waterworks L 08464 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06017 MR001 1/21/2013 2769276 PFHpA
0.01 EPA 537 = 0.01 SE1 AM 04 AL

AL0000591 Southside Waterworks L 08464 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06017 MR001 4/15/2013 2810419 PFHpA
0.01 EPA 537 = 0.01 SE2 AM 04 AL

CO0121275 City of Fountain L 00002 Chlorination for Well 2 GW 0002T EPTDS from Chlorination for Well 2 EP 06679 MAXRES2 1/15/2013 2765901 PFHpA
0.01 EPA 537 = 0.01 SE1 AM 08 CO

CO0121275 City of Fountain L 00004 Chlorination for Well 4 GW 0004T EPTDS from Chlorination for Well 4 EP 06679 MAXRES4 1/15/2013 2766004 PFHpA
0.01 EPA 537 = 0.01 SE1 AM 08 CO

NC0326010 Fayetteville Public Works Commission XL 00010 Hoffner WTP SW EP1 EPTDS from Hoffner WTP EP 52930 U99001 1/17/2013 201301180382AM
PFHpA 0.01 EPA 537 = 0.01 SE1 AM 04 NC

MA1329000 Westfield Water Department L 00033 Well #7 GW 10516 EPTDS from Well #7 EP 99002 MR004 2/27/2013 3584876005AM PFHpA 0.01 EPA 537 =
0.0110 SE1 AM 01 MA

NJ1205001 Edison Water Co. c/o NJ American Water L 10017 Middlesex Water Intertie SW CC010017 NJEMS 12-229 - Edison EP 14357 DBPMAX 1/9/2013 20679401
PFHpA 0.01 EPA 537 = 0.0110 SE1 AM 02 NJ

NM3521613 Hobbs Municipal Water Supply L 94046 Hydro GW SP216130461 Entry Point #5 EP 05535 MR005 8/12/2013 201308130173AM PFHpA 0.01 EPA
537 = 0.0120 SE2 AM 06 NM

TX2210001 City of Abilene XL 58563 Northeast Plant SW EP002MC2Sample Site EP 45540 DS012 5/20/2013 720300-8911 PFHpA 0.01 EPA 537 =
0.015140 SE2 AM 06 TX

NC0363108 Moore County Public Utilities - Pinehurst L 40088 EMWD Intertie SW EP003 EPTDS from EMWD Water EP 55195 MR003 2/28/2013 201303010356AM
PFHpA 0.01 EPA 537 = 0.0160 SE1 AM 04 NC

TX2210001 City of Abilene XL 58563 Northeast Plant SW EP002MC2Sample Site EP 45540 DS012 8/20/2013 739083-9589 PFHpA 0.01 EPA 537 =
0.0161 SE3 AM 06 TX

CA1910042 City of Pico Rivera Water Department L 91811 Well 11 GW 1910042811 EP #19 Well #11 Treated EP 99001 1910042999 1/24/2013 440-36162-9
PFOA 0.02 EPA 537 = 0.02 SE1 AM 09 CA

CO0121275 City of Fountain L 00001 Chlorination for Well 1 GW 0001T EPTDS from Chlorination for Well 1 EP 06679 MAXRES1 1/15/2013 2765892 PFHpA
0.01 EPA 537 = 0.02 SE1 AM 08 CO

CO0121275 City of Fountain L 00003 Chlorination for Well 3 GW 0003T EPTDS from Chlorination for Well 3 EP 06679 MAXRES3 1/15/2013 2766032 PFOA
0.02 EPA 537 = 0.02 SE1 AM 08 CO

CO0121275 City of Fountain L 00005 Fountain Valley Authority Intertie SW 00005 EPTDS from Fountain Valley Authority EP 06679 MAXRES5 4/16/2013 2810052
PFHpA 0.01 EPA 537 = 0.02 SE2 AM 08 CO

KY0560258 Louisville Water Company XL 00001 Crescent Hill Filter Plant SW TPA Plant Tap EPTDS EP 89961 K21 8/12/2013 2875568 PFOA 0.02 EPA
537 = 0.02 SE3 AM 04 KY

KY0560258 Louisville Water Company XL 00002 BE Payne Water Treatment Plant SW TPB Plant Tap EPTDS EP 89962 370 2/11/2013 2777914 PFOA 0.02 EPA
537 = 0.02 SE1 AM 04 KY

NJ0217001 Fair Lawn Water Department L 05020 Well 28 TP GW TP005020 Treatment House - Well 28 EP 14794 DBPMAX 7/30/2013 734226-9422 PFOA 0.02 EPA
537 = 0.020620 SE2 AM 02 NJ

CA1910042 City of Pico Rivera Water Department L 91810 Well 12 GW 1910042810 EP #20: Well 12 Treated EP 99001 1910042999 1/24/2013 440-36162-7
PFOA 0.02 EPA 537 = 0.0210 SE1 AM 09 CA

NJ0217001 Fair Lawn Water Department L 01005 Cadmus TPGW TP001005 EPTDS from Cadmus TP EP 14794 DBPMAX 7/30/2013 734230-9422 PFOA 0.02 EPA
537 = 0.0217 SE2 AM 02 NJ

TX2210001 City of Abilene XL 58563 Northeast Plant SW EP002MC2Sample Site EP 45540 DS012 5/20/2013 720300-8911 PFOS 0.04 EPA 537 =
0.046160 SE2 AM 06 TX

TX2210001 City of Abilene XL 58563 Northeast Plant SW EP002MC2Sample Site EP 45540 DS012 8/20/2013 739083-9589 PFHxS 0.03 EPA 537 =
0.046860 SE3 AM 06 TX

CA3010037 Yorba Linda Water District VL 91805 Highland Reservoir GW 3010037805 EP #12: RES-YLWDHIGHLAND-01 EP 99002 3010037992 1/9/2013 3010037805
PFOS 0.04 EPA 537 = 0.0474 SE1 AM 09 CA

CA1910042 City of Pico Rivera Water Department L 91802 Well 8 GW 1910042802 EP #28: Well 8 Treated EP 99001 1910042992 1/24/2013 440-36162-1
PFOS 0.04 EPA 537 = 0.0480 SE1 AM 09 CA

CA1910211 Park Water Company - Bellflower/Norwalk VL 91804 Well 41A GW 1910211804 EP #40: Well 41A Treated EP 99002 1910211993 6/18/2013
201306180126AM PFOS 0.04 EPA 537 = 0.0490 SE1 AM 09 CA

AL0000591 Southside Waterworks L 08464 Gadsden Water Intertie SW EP001 EPTDS from Gadsden Water EP 06017 MR001 1/21/2013 2769276 PFOS
0.04 EPA 537 = 0.05 SE1 AM 04 AL

MI0005370 Plainfield Township L 05448 Treatment Plant GU TP100 Treatment Plant Tap EP 05004 MR1 6/28/2013 2850296 PFOS 0.04 EPA 537 =
0.05 SE1 AM 05 MI

CA1910211 Park Water Company - Bellflower/Norwalk VL 91807 Well 28B GW 1910211807 EP #37: Well 28B Treated EP 99002 1910211995 5/21/2013
201305210287AM PFOS 0.04 EPA 537 = 0.0510 SE1 AM 09 CA

CA1910211 Park Water Company - Bellflower/Norwalk VL 91807 Well 28B GW 1910211807 EP #37: Well 28B Treated EP 99002 1910211995 6/18/2013
201306180123AM PFOS 0.04 EPA 537 = 0.0510 SE1 AM 09 CA

TX2210001 City of Abilene XL 58563 Northeast Plant SW EP002MC2Sample Site EP 45540 DS012 5/20/2013 720300-8911 PFHxS 0.03 EPA 537 =
0.051650 SE2 AM 06 TX

CA1910211 Park Water Company - Bellflower/Norwalk VL 91803 Well 46C GW 1910211803 EP #41: Well 46C Treated EP 99002 1910211992 5/21/2013
201305210279AM PFOS 0.04 EPA 537 = 0.0520 SE1 AM 09 CA

CA1910211 Park Water Company - Bellflower/Norwalk VL 91804 Well 41A GW 1910211804 EP #40: Well 41A Treated EP 99002 1910211993 5/21/2013
201305210285AM PFOS 0.04 EPA 537 = 0.0520 SE1 AM 09 CA

CA3310009 Eastern Municipal Water District XL 91806 Well 59 (Indian Ave.) GW 3310009806 EP #82: Well 59 Treated EP 99002 3310009998 6/18/2013 B3F1941-01
PFOA 0.02 EPA 537 = 0.0530 SE1 AM 09 CA

NY5110526 Suffolk County Water Authority XL **00107 Bellmore Ave. Wellfield GW 00107EP Bellmore Ave. #4 EP 01107 01107MR 4/26/2013201616958**
PFNA 0.02 EPA 537 = 0.0530 **SE1 AM 02 NY**

AZ0410112 City of Tucson XL 13016 TEPDS126R004A GW TEPDS126R004A R-004A EP 13002 DSMRT0154/16/2013 201304180592AM PFOS 0.04 EPA 537 =
0.0560 SE1 AM 09 AZ

N