May 19, 2006

Mr. James Craft
New York Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519

Re: Soil Vapor Intrusion
Tennessee Gas Pipeline Compressor Station 237 (Site # 835011)
Lafayette, New York

Dear Mr. Craft

Tennessee Gas Pipeline (TGPL) is pleased to submit this Soil Vapor Intrusion Evaluation at TGPL Compressor Station 237 (Station 237) in Clifton Springs, New York (Figure 1). These activities are in response to the Soil Vapor Intrusion Evaluation requested by the New York Department of Environmental Conservation (NYSDEC) and New York State Department of Health NYSDOH) in a letter dated March 13, 2006.

Eco-Systems, Inc. (Eco-Systems) on behalf of TGPL has performed a comprehensive review of volatile organic compound (VOC) data collected at Station 237. The purpose hereby of the historic hazardous substance list (HSL) review was to review previous reports and sampling results at Station 237 to determine if there was a need to conduct further soil vapor intrusion studies.

SUMMARY OF CHARACTERIZATION AND CORRECTIVE ACTION

Groundwater monitoring began at Station 237 in the early 1990s with the installation of five monitoring wells (Monitoring Wells MW-1 through MW-5) and focused on delineating the extent of polychlorinated biphenyls (PCBs)[1]. These monitoring wells are screened in the overburden and the upper fractured bedrock zone. Four rounds of groundwater sampling were completed from 1990 through 1993. Results of these groundwater sampling efforts indicated that the chlorinated VOC compounds chloroethane, 1,1-dichloroethene (1,1-DCE), 1,1-dichloroetnane (1,1-DCA), and 1,1,1-trichloroethane (1,1,1-TCA) were reported above the New York Standards, Criteria, and Guidance (NY SCG) in groundwater samples collected from Monitoring Well WM-2S (Table 1). Concentrations of 1,1-DCA and 1,1-TCA were reported above the NY SCG in groundwater samples collected from Monitoring Well MW-3 above the NY SCG.

The presence of chlorinated VOCs identified in groundwater samples from Monitoring Wells MW-2 and MW-3 indicated the necessity to characterize soil near these monitoring wells. A soil gas survey was performed between August and September 1992 near the ART Areas A

[1]Roy F. Weston. Remedial Investigation, Tennessee Gas Pipeline Company, Compressor Station 237 at Clifton Springs, New York. 1991.

and B and the compressor building to define the distribution of VOCs in subsurface soil and groundwater[2]. Eleven VOCs were detected above the detection limits in the soil gas samples. The results of the soil gas samples nearest to Monitoring Wells MW-2S and MW-3 had the highest detections of VOCs.

A Phase I groundwater characterization program to delineate the distribution of VOCs was conducted during October 1993[3]. The primary objective was to delineate the lateral extent of VOCs in groundwater, if any downgradient of Monitoring Wells MW-2S and MW-3. This program included the collection of groundwater samples from temporary drive points installed in a series of transects downgradient from Monitoring Wells MW-2S and MW-3. Soil samples were also collected at two-foot (ft) intervals during the installation of the temporary drive points for lithologic logging and for field screening of VOCs with a photoionization detector (PID). Selected soil samples were collected for laboratory analysis of VOCs from locations where VOCs were previously reported[4]. Upon completion of the temporary drive points, groundwater samples were collected.

Soil samples were planned for collection where elevated PID responses were observed. PID responses were elevated above 10 parts per million (ppm) in soil samples collected adjacent to and downgradient from Monitoirng Wells MW-2S and MW-3. Soil samples collected for laboratory analysis were generally collected at locations where the PID responses were elevated and where VOCs were reported in soil or groundwater nearby. No VOCs were reported in any of the soil samples analyzed[5].

The groundwater samples collected from the temporary drive points were submitted for VOC analysis. Elevated levels of the VOCs chloroethane, 1,1,1-TCA, and 1,1-DCA were detected in five of the eight groundwater samples collected from the temporary drive points downgradient of Monitoring Wells MW-2S and MW-3. Additional VOCs detected consisted of benzene, total xylenes, toluene, ethylbenzene, 1,3,5-trimethylbenzene (1,3,5-TMB), and 1,2,4-trimethylbenzene (1,2,4-TMB). Most of the VOCs were non-chlorinated aromatics.

As a result of the Phase I activities, a Phase II work plan was prepared to further define the lateral and vertical extent of VOCs in groundwater at Station 237. The Phase II characterization program was initiated in 1994 and consisted of the installation of seven additional confirmatory monitoring wells. Monitoring Wells MW-2D and MW-6 were installed adjacent to Monitoring Wells MW-2S and MW-3, respectively to determine if vertical migration of VOCs had occurred in the deeper groundwater zone. Monitoring Well MW-7 was installed in the shallow bedrock downgradient from Monitoring Well MW-2S. Monitoring Wells MW-8S and MW-9S were installed in the shallow groundwater zone and Monitoring Wells MW-8D and MW-9D were installed in the deeper groundwater zone

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[2] Ecology and Environment, Inc. Soil Gas Survey, Tennessee Gas Pipeline Company, Compressor Station 237, Lafayette, New York. January 1993.
[3] Roy F. Weston. Report on Phase I Additional Groundwater Characterization - Volatile Organic Compounds, Tennessee Gas Pipeline Company, Compressor Station 241 at Lafayette, New York. February 1994.
[4] Ibid.
[5] Ibid.

downgradient from Monitoring Well MW-2S and MW-3 to determine the lateral and vertical extent of any VOC migration (Figure 2)[6].

During the Phase II activities, groundwater samples from the seven new groundwater monitoring wells were submitted for VOC analysis. The VOCs similar to those detected in previous sampling events were detected in groundwater at all seven Phase II monitoring wells[7]. The VOC's detected included 1,1,1-TCA, benzene, toluene, ethylbenzene, and total xylenes (BTEX), 1,3,5-TMB, and 1,2,4-TMB. The highest concentration of individual VOCs were primarily detected in groundwater samples collected from the shallow bedrock monitoring wells, located downgradient of existing Monitoring Well MW-2S and the compressor building area.

An evaluation of the groundwater results discussed above suggested that the soil in the vicinity of monitoring wells MW-2S and MW-3 (located in ART Areas A and B) may be potential sources of VOCs that are present in the groundwater in these areas. Therefore, the focus of the VOC source characterization was to delineate, if present, the distribution of any VOCs in these soils.

Following the Phase II activities, a Feasibility Study[8] was prepared that presented remedial options. A Proposed Remedial Action Plan was issued by NYSDEC in February 1995 which addressed contaminated on-site soils and groundwater[9]. A comprehensive VOC source characterization program was implemented to determine if there were any sources of VOCs in the overburden that may be contributing to VOCs identified in the groundwater[10]. A follow up soil gas survey was performed to ensure optimal selection of locations for a confirmatory soil boring program to determine if VOCs are in the subsurface soils. Soil samples were collected from numerous locations based on the soil gas survey, OVA response, and visual observations. Many of the soil samples were collected in the vadose zone. In the ART Areas A and B, VOCs were detected at low concentrations in soil samples within the capillary fringe and well below the saturated overburden[11]. These VOCs were the same compounds identified in groundwater and are present in soils at similar or lower concentrations. The VOCs in soils do not represent a likely source for the VOCs in groundwater.

A proposed remedy was selected and issued for public comment and a Record of Decision (ROD)[12] was issued that specifies certain remedial goals related to soils, sediments, and drainlines at Station 237. The ROD also identifies remedial goals/action levels for certain constituent levels in groundwater including 1,1,1-TCA and 1,1-DCA.

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[6] Roy F. Weston. Report on Phase II Groundwater Characterization - Volatile Organic Compounds, For Tennessee Gas Pipeline Company, Compressor Station 237 at Lafayette, New York. July 1994.
[7] Ibid.
[8] ENVION Corp. Feasibility Study, Tennessee Gas Pipeline Company, Compressor Station 241 at Lafayette, New York. July 1996.
[9] NYSDEC. Proposed Remedial Action Plan. February 1995.
[10] Roy F. Weston. Report on VOC Source characterization at Tennessee Gas Pipeline Company Compressor Station 237, Clifton Springs, Ney York. July 1995
[11] Ibid.
[12] NYSDEC. Record of Decision. March 1995.

A Remedial Design Work Plan[13] was prepared and remediation was completed in 1996[14]. Remediation was performed at seven main areas of the site: Air Receiver Tank A, Air Receiver Tank B, Drainage Ditch F and Retired Burn Pit. Within these areas approximately 199 in-place cubic yards (yd^3) of soil/sediment were excavated and disposed of off site. Drainline remediation was performed for two on-site drainage systems. Approximately 1,895 linear ft of Drainline A and 1,590 linear ft of drainline B were closed via filling with non-shrink grout.

Upon completion of remediation activities, Monitoring Wells MW-10S and MW-11S were installed in the shallow groundwater zone and Monitoring Wells MW-10D and MW-11D were installed in the deeper groundwater zone (Figure 2)[15]. A site specific Groundwater Monitoring and contingency Plan (GMCP) was developed to implement the remedy selected (natural attenuation) in the ROD[16]. In 1996 TGPL began a post remediation groundwater monitoring program. Groundwater samples were collected from the Monitoring Wells and analyzed for VOCs. Groundwater sampling and analysis were conducted in accordance with the procedures specified in the Quality Assurance Project Plan for Soil/Drainline Remediation, New York Compressor Stations (QAPP)[17].

BTEX as well as 1,2,4- and 1,3,5-TMB have been detected in several monitoring wells at Station 237. In July 2000, Borehole BH-14 (Figure 2), was advanced into the deep zone hydraulically upgradient of all station activities to determine if BTEX and TMBs were naturally present at this location. The shale sample from 45.0 to 45.67 ft below ground surface (bgs), was retained for laboratory analysis, and a grab groundwater sample was also collected[18]. The concentrations of BTEX, 1,3,5-TMB and 1,2,4-TMB in the groundwater sample collected from Borehole BH-14 were generally higher than the groundwater samples collected from the monitoring wells at Station 237. The BTEX, 1,3,5-TMB and 1,2,4-TMB detections were determined to be naturally occurring in the Devonian Shale.

In November 2001 during the collection of depth-to-water measurements from the monitoring wells, a 0.23 ft thick layer of light non-aqueous phase liquid (LNAPL) was measured from Monitoring Well MW-2S. A sample of the LNAPL was collected from Monitoring Well MW-2S and was determined to be oil containing polychlorinated biphenyls (PCBs) at 1.8 milligrams per liter (mg/L)[19].

Upon completion of the required five year monitoring program concentrations the chlorinated VOC compounds 1,1,1-TCA, 1,1-DCA, and 1,1-DCE, and chloroethane were reported above the NY SCG limit of five micrograms per liter (µg/L) in the groundwater samples collected from Monitoring Well MW-2S (Table 1). The chlorinated VOC compounds 1,1,1-TCA and

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[13] BB&L. Remedial Design Work Plan, Compressor Station 237, Clifton Springs, New York. March 1996.
[14] BB&L. Final Documentation Report for Soil, Sediment, and Drainline Remediation Activities, Compressor Station 237, Clifton Springs, New York, Site No. 835001. November 1996.
[15] Ibid.
[16] Roy F. Weston. Groundwater Monitoring and Contingency Plan, Tennessee Gas Pipeline Company, Compressor Station 237, Clifton Springs, New York. April 1996.
[17] BB&L. May 1995 and TGPL. February 1996.
[18] Eco-Systems, Inc. TGPL Compressor Station 237 (Site# 835011), Letter Report – Field Activity Report. October 2000.
[19] Eco-Systems, Inc. TGPL Compressor Station 237 Clifton Springs, New York, Fifth Annual Report. April 2002.

1,1-DCA were reported above the NY SCG limit in the groundwater samples collected from Monitoring Wells MW-3, MW-8S, and MW-9S (Table 1). A Source Investigation and Corrective Action Work Plan[20], was submitted to NYSDEC. NYSDEC provided comments to the work plan in a letter dated June 19, 2003, and TGPL provided a response to the comments in a letter dated July 23, 2003. NYSDEC granted approval of the source delineation and corrective action work plan in a letter dated August 20, 2003. The source investigation and corrective action activities were initiated at Station 237 in October of 2003.

The source investigation and first HRC injection into the subsurface at Station 237 were conducted during October 2003. The results of the soil samples collected near the ART areas revealed there was no continuing source of chlorinated VOCs. The objective of the HRC injection project was to transform historically oxidizing subsurface conditions into reducing conditions and promote the production of hydrogen by naturally occurring bacteria. In these reducing conditions, the naturally occurring microorganisms use hydrogen to progressively remove chlorine atoms from chlorinated hydrocarbon contaminants (i.e. 1,1,1-TCA to 1,1-DCA to chloroethane to ethane)[21].

Concentrations of 1,1,1-TCA, 1,1-DCA, and chloroethane were showing a decreasing trend, but remained above the NY SCG levels in the 20th month after HRC was initially injected into the subsurface. The field parameters and natural attenuation geochemical data also indicated that the HRC may be losing effectiveness. According to the manufacturer, the effectiveness of HRC is expected to be approximately 12 to 18 months. TGPL recommended in the June 2005 Semi-annual Groundwater Monitoring Event Report[22] that a second application of HRC be injected into the subsurface in the vicinity of Monitoring Wells MW-2S, MW-3, MW-8S, and MW-9S. NYSDEC approved the re-application of HRC on August 3, 2005. The re-application of HRC was conducted during October 25 through 28, 2005 in accordance with the procedures followed in the October 2003 HRC application[23].

TGPL also recommended in the June 2005 Semi-annual Groundwater Monitoring Event Report[24] the plugging and abandonment of Monitoring Wells MW-1, MW-11S, and MW-11D because they were upgradient and VOCs had not been reported in groundwater samples from these monitoring wells. TGPL also recommended to plug and abandon Monitoring Wells MW-8D, MW-9D, and MW-10D, because VOCs had either never been reported or were well below the NY SCG in groundwater samples collected from these monitoring wells. Additionally, plug and abandon Monitoring Wells MW-2D and MW-6 because BTEX, 1,3,5-TMB and 1,2,4-TMB constituents reported in groundwater samples were found to be naturally occurring, and plug and abandon the five piezometers at Station 237. Finally, plug and abandon Monitoring Well MW-2S, remove affected soil in a small area near Monitoring Well MW-2S and install a replacement monitoring well (Monitoring Well MW-2SR) adjacent to the Monitoring Well MW-2S location.

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[20] Eco-Systems, Inc. July 2002.
[21] Wiedemeier, T.H., J.T. Wilson, J.E. Hansen, and F.H. Chapelle. Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Groundwater. 1996.
[22] Eco-Systems, Inc. 2005.
[23] Eco-Systems, Inc. July 2002.
[24] Eco-Systems, Inc. August 2005.

NYSDEC approved the plugging and abandonment on October 5, 2005. Monitoring Wells MW-1, MW-2S, MW-11S, MW-11D, MW-8D, MW-9D, MW-10D, MW-2D and MW-6 as well the five piezometers at Station 237 were abandoned on November 2, 3, and 4, 2005[25]. Replacement Monitoring Well MW-2SR was installed on November 4, 2005.

SOIL VAPOR

The nature and extent of VOCs have been defined at Station 237. As described in the Summary of Characterization and Corrective Action of this document, during the spring of 1988 through May 1996, TGPL implemented characterization activities at Station 237. A preliminary sampling program was conducted by TGPL in 1988 to determine if PCBs were present in the starting air system, the drainage system, or the drainage system receiving area. An extensive site characterization program was performed between October 1990 and April 1991. This program consisted of the collection and analysis of soil, sediment and water samples to define the presence of PCBs and screen for the presence of HSL constituents based on Target Compound List (TCL)/Target Analyte List (TAL) analysis.

A limited number of soil samples were collected in ART Areas A and B during the RI. Four grab soil samples were collected from ART Area A (two samples at each location, from 0-6 inches below ground surface (bgs) and 6-12 inches bgs, respectively. Four grab samples were also collected from ART Area B. Concentrations of 1,1,1-TCA was detected in two of these samples at concentrations ranging from 0.058 mg per kilogram (mg/kg) to 0.015mg/kg. One grab soil sample was also collected and analyzed during the drilling and installation of monitoring well MW-2. In this sample, collected from the 10-ft to 12-ft bgs depth interval, 1,1,1-TCA (0.8 mg/kg) 1,1-DCE (0.076 mg/kg), and 1,1-DCA (0.015 mg/kg) were detected. Depth to water in this monitoring well was noted to be 8 feet bgs.

The results from these investigations indicate the presence of chlorinated VOCs generally in the area near Monitoring Well MW-2S, MW-3 near the ART A and B areas and Monitoring Well MW-9S. The TAL levels are below levels of concern for these constituents.

In addition, a soil gas survey was conducted in the area near the ART A and B areas and the compressor building in August and September 1992 and in March 1995 as part of the VOC source characterization to define the distribution of VOCs in subsurface soil and groundwater. The results from these soil gas survey indicated that the soils are not a significant, continuing source of VOCs to groundwater. VOCs were not reported in soil gas samples collected nearest to the compressor building and upgradient of Monitoring Wells MW-2S and MW-3 except for low levels of methylene chloride which is considered a common laboratory contaminant. In the absence of a source of VOCs in soil, the current groundwater conditions are likely to be localized with the enhanced natural attenuation and natural attenuation further downgradient. The VOCs noted in soil samples collected in the vicinity of ART areas A and B were predominately at a depth greater than five ft which is within the capillary fringe below the top of the saturated overburden. These VOCs are the same compounds identified in groundwater and are present at similar or lower concentrations. As the above activities show, Station 237 has been properly characterized and no further soil gas sampling is necessary.

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[25] Eco-Systems, Inc. December 2005.

The likelihood of a soil vapor problem on or off site is extremely low. The facility is an industrial site with limited access. TGPL's compressor building is the only building on the property with a basement. The floor of the basement is partially below grade and has windows for ventilation. It is also upgradient from Monitoring Wells MW-2S and MW-3 which are the monitoring wells that indicates the presence of chlorinated VOCs. The rest of the building has a crawl space that is at grade. The basement is only occupied during periodic maintenance activities (i.e., valve, gauge, and engine repair and inspection) and for far less than 40 hours a week. The crawl space is rarely entered except during major maintenance events (i.e., engine repair during a shutdown). The compressor building houses the reciprocating compressor engines and is well ventilated.

Recent depth-to-water measurements from the shallow Monitoring Wells were utilized to create a generalized water-table map for Station 237 (Figure 2). The general direction of shallow groundwater flow shown by this map is to the north to northeast. This is consistent with historically observed groundwater flow direction at Station 237. The concentrations of VOCs in the downgradient perimeter monitoring wells, upgradient monitoring well and the residences to the north were proven to be naturally occurring.

Finally, the soil gas data collected at Station 237 is representative. The methods used in the soil gas survey are consistent with the procedures recommended by Guidance for Evaluating Soil Vapor Intrusion in the State of New York. The soil gas samples were collected using temporary stainless-steel probes and tedlar bags. One soil gas sample was collected using a tenax tube. Soil gas was extracted from the ground through the probe using a vacuum chamber and pump. The soil gas passed directly from the subsurface to the tedlar bag or tenax tube without exposure to the pump or ambient air. The soil gas from the tedlar bag was analyzed by gas chromatography using a Hall/PID and the tenax tube analyzed using gas chromatography/mass spectroscopy techniques. The procedures recommended in the Guidance for Evaluating Soil Vapor Intrusion in the State of New York are to be used as guidance and may be changed with the States approval. There is no need for further soil gas sampling. TCE is no longer used at the facility.

CONCLUSIONS

The Guidance for Evaluating Soil Vapor Intrusion in the State of New York also mentions that no two sites are exactly alike; the approach in evaluating soil vapor intrusion is dependant on site specific conditions. A thorough understanding of the site including history of use, characteristics, and potentially exposed populations is used to develop an investigation plan. The appropriate data is gathered and reviewed until the following questions are answered.

1. Are subsurface vapors contaminated (i.e., soil vapor as defined in section 1.1, including vapors located immediately beneath the foundation or slab of a building. What is/are the sourc(s) of the contamination?

As mentioned previously in this document the mobility of VOCs is limited both vertically and laterally in the overburden deposits, most likely due to the relatively low hydraulic conductivity and fine grained nature of these deposits. Natural attenuation is expected to be a significant factor in the fate of VOCs in groundwater. The groundwater is currently being successfully treated for accelerated anaerobic natural attenuation in the area of Monitoring Well MW-2S. Additionally, a soil gas survey was conducted in the area near the ARTs and the compressor building in August and September 1992 and March 1995 defined the distribution of VOCs in subsurface soil and groundwater. The results from these soil gas survey indicated that the soils are not a significant, continuing source of VOCs to groundwater.

2. What are the current and potential exposures to contaminated subsurface vapors?

The results of the groundwater characterization indicate that the chlorinated VOCs detected above the NY SCG are confined to near Monitoring Well MW-2S and MW-3. The results from the soil gas surveys also indicated that the soils are not a significant, continuing source of VOCs. Concentrations of VOCs in the soil gas samples collected downgradient near the property boundary and nearby residences were either not detected, were proven to be naturally occurring, or were false positive from substances considered a common laboratory contaminant.

The facility is and will continue to be an industrial site with limited access. TGPL's compressor building is the only building on the property with a basement. The floor of the basement is partially below grade and has windows for ventilation. The basement is only occupied during periodic maintenance activities (i.e. valve, gauge, and engine repair and inspection) and for far less than 40 hours a week. The crawl space is rarely entered except during major maintenance events (i.e. engine repair during a shutdown). The compressor building houses the reciprocating compressor engines and is well ventilated.

3. What actions, if any, are needed to prevent or mitigate exposures and to remediate subsurface vapor contamination?

As mentioned previously the compressor building has limited access and is well ventilated. As evidenced by reports submitted to NYSDEC the remediation of VOCs in groundwater is performing as expected. The long term monitoring indicates the groundwater conditions are stable and the concentrations of VOCs are reducing over time. The remedial program included the application of HRC to stimulate the anaerobic biodegradation of chlorinated VOCs.

The nature and extent of VOCs in all environmental media, factors affecting vapor migration and intrusion, current and future uses, off-site land uses, presence of alternative sources of volatile chemicals, and completed or proposed remedial actions have been addressed. Our evaluation is no further soil vapor intrusion work is warranted at Station 237.

Neither this letter, performance of the evaluation or the provision of any information, nor the results or contents of same shall be construed (i) as an admission, adjudication or finding of liability or of any issue of law or fact; (ii) as a concession by TGPL that the Department or State of New York has the right to compel TGPL to conduct the evaluation or take any subsequent action; or (iii) as barring, diminishing, adjudicating or in any way affecting any of TGPLs rights including, but not limited to, its rights under Order on Consent No. A7-0349-9510 and its right to defend against any action brought by the Department or the State of New York.

CLOSING

Eco-Systems appreciates the opportunity to assist TGPL on this project. If you have any questions or require additional information, please do not hesitate to contact us.

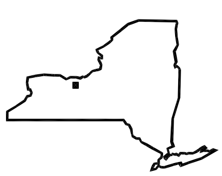
Sincerely yours,

Ian Yanagisawa, P. E., P. G.
Principal Environmental Engineer

Figures and Table

cc: Scott Lewis, TGPL
Mark Van Valkenburg, NYSDOH
Tim Webster, Webster, Szanyi, LLP
Marty Grimes, TGPL Compressor Station 237
Jim Connors, Eco-Systems
Eco-Systems - Central File

FIGURES



QUADRANGLE LOCATION

SOURCE: MAPTECH 7.5 QUADRANGLE MAP – CLIFTON SPRINGS, NEW YORK

N

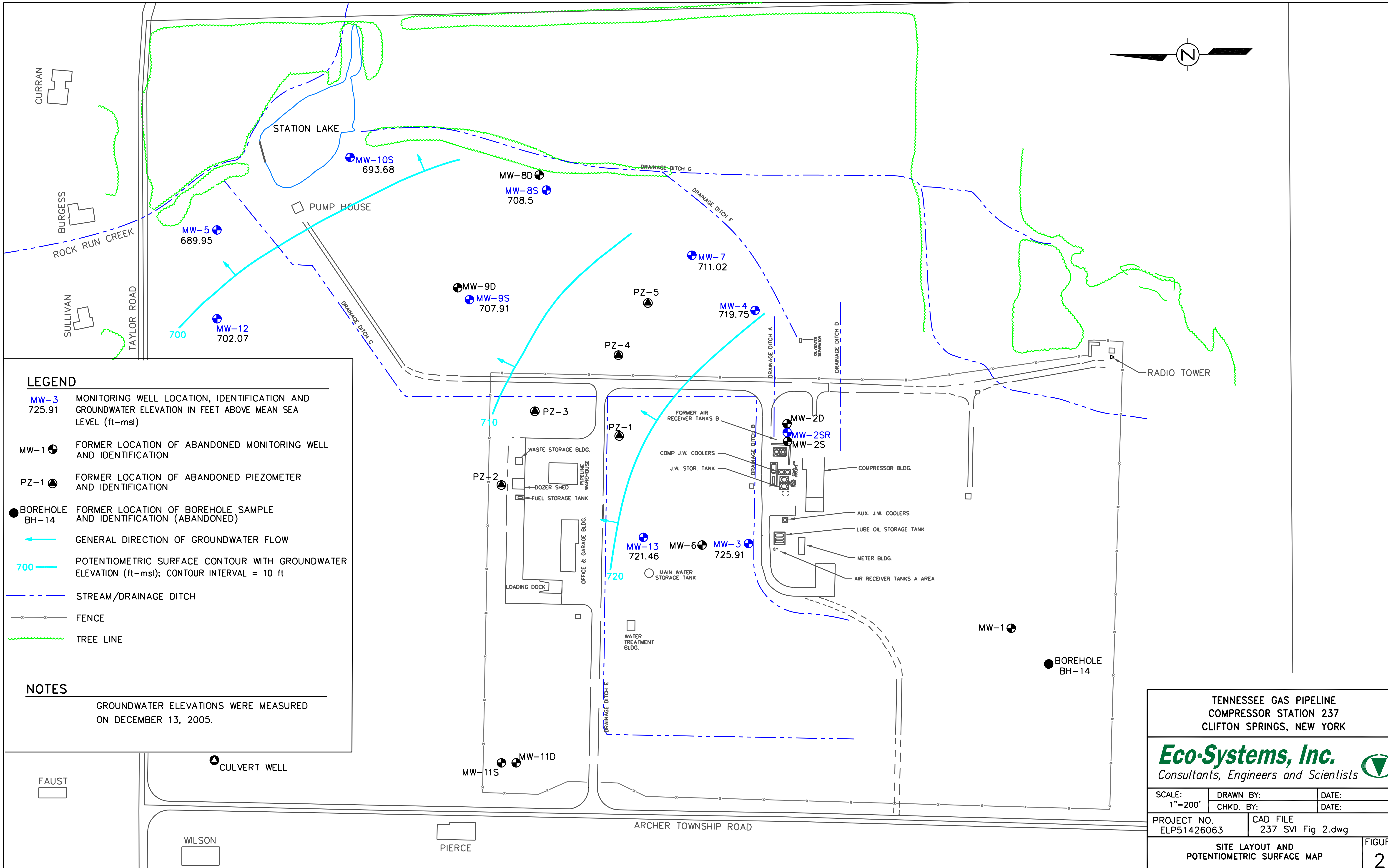
TENNESSEE GAS PIPELINE
CLIFTON SPRINGS, NEW YORK
COMPRESSOR STATION 237

Eco·Systems, Inc.
Consultants, Engineers and Scientists

SCALE: 1"=1500'	DRAWN BY: N. SISSON	DATE: 09/01/04
	CHKD. BY:	DATE:

PROJECT NO. ELP97730	CAD FILE ELP97730-TOPO.dwg

SITE LOCATION MAP	FIGURE 1



LEGEND

MW-3 725.91	MONITORING WELL LOCATION, IDENTIFICATION AND GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (ft-msl)
MW-1	FORMER LOCATION OF ABANDONED MONITORING WELL AND IDENTIFICATION
PZ-1	FORMER LOCATION OF ABANDONED PIEZOMETER AND IDENTIFICATION
BOREHOLE BH-14	FORMER LOCATION OF BOREHOLE SAMPLE AND IDENTIFICATION (ABANDONED)
	GENERAL DIRECTION OF GROUNDWATER FLOW
700	POTENTIOMETRIC SURFACE CONTOUR WITH GROUNDWATER ELEVATION (ft-msl); CONTOUR INTERVAL = 10 ft
	STREAM/DRAINAGE DITCH
	FENCE
	TREE LINE

NOTES

GROUNDWATER ELEVATIONS WERE MEASURED ON DECEMBER 13, 2005.

TENNESSEE GAS PIPELINE
COMPRESSOR STATION 237
CLIFTON SPRINGS, NEW YORK

Eco-Systems, Inc.
Consultants, Engineers and Scientists

SCALE: 1"=200'	DRAWN BY:	DATE:
	CHKD. BY:	DATE:

PROJECT NO. ELP51426063	CAD FILE 237 SVI Fig 2.dwg

SITE LAYOUT AND POTENTIOMETRIC SURFACE MAP

FIGURE 2

TABLE

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-1																								MW-1 (DUP)	NY SCG
	1/91	*4/91*	*7/92*	*8/93*	*7/96*	*1/97*	*8/97*	*1/98*	*6/98*	*1/99*	*5/99*	*8/99*	*12/99*	*6/00*	*11/00*	*6/01*	*6/02*	*11/02*	*5/03*	*12/03*	*6/04*	*12/04*	*6/05*	*12/05*	*6/00*	Level
VOCs																										
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	R	23.6J	39.1J	8.3J		ns	
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**1**
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**700**
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U		U	
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**10000**
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	R	U	R	UJ	**ABANDONED**	ns	
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	
Chloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**7**
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns		U	**5**
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**0.6**
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Methylene Chloride	9	9	1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Toluene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**ABANDONED**	U	**5**
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**1**
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**2**
Xylenes (Total)	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**15**
ALTERNATIVE GEOCHEMICAL PARAMETERS																										
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1600	5300	4000	1200	2600	2000	1200	3400	1400	U	U	U	U		ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	U	U	U	U	U	0.15		ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	U	U	U	U	U	U		ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	420	200	5300	140	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	720	22	90	U	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1250	U	U	205	U	U	U	126	199	**ABANDONED**	ns	
Methane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	2300	1400	ns	500	1100	4.7	340	32	U	32.6	70.6	271		ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	190	U	U	140	U	U	230	U	140	1900	220	960	210		ns	
SOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	76400	2200	12600	1400	4200	1800	U	1200	U	2800	U	1000	U		ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	20600	23600	20100	11900	23100	18900	10800	7500	20100	U	U	U	14500		ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	ns	U	U	U	U	U	U	U	U	U		ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	361000	341000	359000	320000	361000	386000	329000	289000	277000	391000	383000	381000	406000		ns	
TOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	2100	2400	12400	2700	1600	1500	1200	2000	U	1700	1400	1200	U		ns	

Notes:
All data in micrograms per liter (µg/L)
NY Standards, Criteria, and Guidance (SCG) Levels are equal to NYS groundwater quality standards per 6NYCRR part 703
Analytical results in red indicate value exceeds NY SCG Level
"U" indicates parameter was not detected above the reported numerical value
"J" indicates estimated value
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"E" indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis
"D" indicates compound identified at a secondary dilution factor
"ns" indicates no sample was collected

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-2S																						
	1/91	4/91	7/92	8/93	11/93	7/96	1/97	8/97	1/98	6/98	1/99	5/99	8/99	12/99	6/00	11/00	6/01	11/01	3/04	6/04	9/04	12/04	6/05
VOCs																							
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	59.2J	68.4DJ	7.6J	9.4J	R
Benzene	U	U	U	U	0.4J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.16J	U	0.81J
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	106DJ	176D	69.3DJ	21.8J	R
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	0.21J	U	U	U	U	U	U	U	U	U	U	U	U
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.14J	0.14J	U
Chloroethane	U	U	7.5	29	20	57	U	34D	7.2	33	30D	14	67D	72	13	39	31D	61D	36.4	52.8D	78.1D	126D	230D
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1-Dichloroethane	350	350	260	360E	120E	130	U	100D	21D	60	31D	16	73D	52	16	66	23D	73D	58.4	44.5D	36.2	32.9	23.9
1,2-Dichloroethane	U	U	U	U	0.2J	U	U	U	U	U	U	U	.62J	U	U	U	0.31J	0.45J	U	U	0.56	0.80D	0.96
1,1-Dichloroethene	U	U	35	42	0.7J	15	U	12D	3.7	U	4	1.6	8.9	9.7	2.2	6.5	5.2	8.5	4.2	2.3	4.8	5.7	6.6
Ethylbenzene	U	U	U	U	0.5J	U	U	U	U	U	U	U	U	U	U	U	U	U	0.71J	1.2	U	U	U
Isopropylbenzene	U	U	U	U	U	U	U	U	0.12J	U	U	U	U	U	U	U	U	U	U	U	U	U	0.064J
Methylene Chloride	130J	130J	25	U	0.04J	U	U	7.7DJ	U	U	U	U	U	2J	U	U	U	1.2DJ	U	U	U	U	U
n-Propylbenzene	U	U	U	U	U	U	U	U	0.11J	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.24J	U	0.80J	0.10J
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,1,1-Trichloroethane	2000	2300	1000	1300E	2	190	U	200D	45D	72	52D	19	79D	84	15	36	17	72D	1.1J	3.3	1.8	1.3	0.60
1,1,2-Trichloroethane	U	U	U	0.8J	2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
1,2,4-Trimethylbenzene	U	U	U	1J	7	U	U	U	0.25J	U	U	U	U	U	U	U	U	U	U	U	U	U	0.18J
1,3,5-Trimethylbenzene	U	U	U	U	6	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.67	U	U
Xylenes (Total)	U	U	U	U	16	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
ALTERNATIVE GEOCHEMICAL PARAMETERS																							
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	5200	4100	3800	2500	3000	2800	2700	U	U	U	U	U
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	ns	1.7	0.9	0.32	0.25	0.33
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	ns	U	U	U	U	U
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	790	U	480	340	ns	ns	ns	ns	ns	ns	ns	ns
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	49	500	140	ns	ns	ns	ns	ns	ns	ns	ns
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1500	110	ns	47600	44800	11400	9640	6430
Methane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	68	3100	46	ns	280	310	ns	4180	5310	5020D	7700D	7430D
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	U	U	U	110	U
SOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	71200	5000	8100	5600	7200	5200	7200	775000	360000	148000	33800	7700
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	26600	32800	67500	14200	16800	29900	24600	U	U	U	U	U
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	ns	U	U	U	U	U	U	U	U
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	272000	341000	295000	274000	307000	319000	288000	1110000	1050000	740000	675000	501000
TOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	5500	5200	9000	3800	4900	5000	8500	715000	622000	131000	35100	8100

PARAMETERS	MW-2SR	MW-2S (DUP)							MW-2D						NY SCG
	12/05	7/96	8/97	6/98	1/99	5/99	8/99	6/00	4/94	1/99	6/00	6/01	6/02	12/05	Level
VOCs															
Acetone	R	U	U	U	U	U	U	U	U	U	U	U	U		
Benzene	U	U	U	U	U	U	U	U	0.7J	U	0.35J	U	U		**1**
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U		**700**
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U		
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U		**10000**
2-Butanone	R	U	U	U	U	U	U	U	U	U	U	U	U		
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U		**5**
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U		
Chloroethane	U	58	24D	36D	29	15	55D	13	U	U	U	U	U	**ABANDONED**	**5**
Chloroform	U	U	U	U	U	U	U	U	2	U	U	U	U		**7**
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U		**5**
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U		
1,1-Dichloroethane	U	130	83D	64D	30	17	58D	16	5	U	U	U	U		**5**
1,2-Dichloroethane	U	U	U	U	U	U	0.64J	U	U	U	U	U	U		**0.6**
1,1-Dichloroethene	U	14	7.4D	5.4	4.5J	1.6	9.1	2.2	U	U	U	U	U		**5**
Ethylbenzene	U	U	U	U	U	U	U	U	2	U	U	U	U		**5**
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U		**5**
Methylene Chloride	U	U	6.6DJ	U	U	U	U	U	U	U	U	U	U		**5**
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U		**5**
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U		**5**
Toluene	U	U	U	U	U	U	U	U	4	U	0.30J	U	U		**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U		**5**
1,1,1-Trichloroethane	U	200	150D	78D	51	20	65D	16	2	U	U	U	U	**ABANDONED**	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U		**1**
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	8	U	U	U	U		**5**
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	14	U	U	U	U		**5**
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U		**2**
Xylenes (Total)	U	U	U	U	U	U	U	U	35	U	U	U	U		**15**
ALTERNATIVE GEOCHEMICAL PARAMETERS															
Chloride	U	ns	ns	ns	ns	5200	4000	ns	ns	ns	ns	10400	ns		
Ethane	1.9	ns	ns	ns	ns	U	U	ns	ns	ns	ns	U	ns		
Ethanol	11400	ns	ns	ns	ns	U	U	ns	ns	ns	ns	U	ns		
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Ferric Iron	ns	ns	ns	ns	ns	510	53	ns	ns	ns	ns	16300	ns		
Ferrous Iron	ns	ns	ns	ns	ns	290	18	ns	ns	ns	ns	ns	ns		
Total Iron	209000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Methane	1750	ns	ns	ns	ns	81	2500	ns	ns	ns	ns	390	ns	**ABANDONED**	
Nitrate	U	ns	ns	ns	ns	U	U	ns	ns	ns	ns	5600	ns		
SOC	9040000	ns	ns	ns	ns	70000	6000	ns	ns	ns	ns	8400	ns		
Sulfate	U	ns	ns	ns	ns	22500	33500	ns	ns	ns	ns	159000	ns		
Sulfide	860000	ns	ns	ns	ns	U	U	ns	ns	ns	ns	U	ns		
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Total Alkalinity	2360000	ns	ns	ns	ns	272000	327000	ns	ns	ns	ns	833000	ns		
TOC	9300	ns	ns	ns	ns	4900	6000	ns	ns	ns	ns	7100	ns		

Notes:
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"U" indicates parameter was not detected above the reported numerical value
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"E" indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis
"D" indicates compound identified at a secondary dilution factor
"ns" indicates no sample was collected

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-3																												MW-3 (DUP)												NY SCG Level
	1/91	4/91	7/92	8/93	11/93	7/96	1/97	8/97	1/98	6/98	1/99	5/99	8/99	12/99	6/00	11/00	6/01	11/01	6/02	11/02	5/03	12/03	3/04	6/04	9/04	12/04	6/05	12/05	12/99	6/01	6/02	11/02	5/03	12/03	3/04	6/04	9/04	12/04	6/05	12/05	
VOCs																																									
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	R	12.1J	38.5J	17.1J	36.6J	19.8J	R	U	U	U	U	U	R	14.3J	39.6J	R	36.2J	62.3J	129J	
Benzene	U	U	U	U	0.5J	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	0.091J	0.075J	0.14J	U	U	U	U	U	U	U	U	U	U	U	0.23J	U	**1**
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**700**
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**10000**
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	R	3.4J	13.8	33.5DJ	23.7J	17.6J	R	U	U	U	U	U	R	5.0J	13.8	59.2DJ	21.0J	65.3J	R	
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	0.08J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Chloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	0.67	2.1	U	U	U	U	U	U	U	2.5	U	U	U	2.7	U	**5**
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**7**
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	ns	ns	ns	ns	ns	ns	U	**5**
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1-Dichloroethane	U	U	4.2	**6**	**10**	**24**	U	**6.2D**	U	U	U	U	4.2J	U	UJ	U	1.7	**6J**	U	4.6J	U	2.4	2.7	**7.6**	**9.5**	**8.1**	**8.0**	**14.2J**	U	1.5	U	**5.4**	U	2.1	3.8	**7.5**	**8.3**	**8.4**	**14.4**	U	**5**
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**0.6**
1,1-Dichloroethene	U	U	3.9	1	0.3J	U	U	U	1.2J	U	**5.1J**	U	U	U	UJ	U	2.7	U	U	U	U	U	U	2.0	1.2	1.2	0.75J	U	U	U	U	U	U	U	U	1.8	1.4	1.4	0.97J	U	**5**
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.19J	U	**5**
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Methylene Chloride	**7**	U	**11**	U	0.03BJ	U	U	**7.3DJ**	1.9J	U	U	U	U	U	**27J**	U	U	U	4.1BJ	U	U	U	U	U	U	U	U	U	U	U	4.1BJ	U	U	U	U	U	U	U	U	U	**5**
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Toluene	U	U	U	U	1	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	0.10J	U	U	U	U	U	U	U	U	U	U	U	0.26J	U	**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,1,1-Trichloroethane	**140**	**200**	**260**	**140E**	**26E**	**220J**	**280D**	**220D**	**66**	**220D**	**150**	**190**	**160**	**290**	**130J**	**330**	**160D**	**180**	**120**	**190**	**170**	**68.6**	**42.5**	**72.5DJ**	**52.3D**	**72.0**	**53.1**	**19.8J**	**330**	**160D**	**130**	**180D**	**170**	**67.4**	**47.2**	**81D**	**78.7D**	**93.6D**	**49.0**	U	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**1**
1,2,4-Trimethylbenzene	U	U	U	U	1	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	0.10J	0.10J	0.25J	U	U	U	U	U	U	U	U	0.12J	U	0.073J	0.036J	U	**5**
1,3,5-Trimethylbenzene	U	U	U	U	2	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	0.17J	U	U	U	U	U	U	U	U	U	U	U	0.25J	U	**5**
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**2**
Xylenes (Total)	U	U	U	U	1	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	0.12J	U	0.11J	0.19J	U	U	U	U	U	U	U	U	0.12J	U	0.066J	0.28J	U	**15**
ALTERNATIVE GEOCHEMICAL PARAMETERS																																									
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	2400	4400	5000	1600	2300	2200	3000	1600	1900	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	U	U	U	0.14	0.83	0.93	0.22	0.34	1.2	1.3	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	U	U	U	1760	679	U	U	U	U	4130	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	310	U	1600	150	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	53	60	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1450	U	540	U	U	50.7	U	20600	41100	14800	6110	12300	68200	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Methane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	4.1	U	ns	2	3	ns	U	U	U	99.2	168	139	154	268	368	354	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	850	1400	730	880	1500	1900	3000	2600	3100	2800	3700	1600	U	2200	2800	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
SOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	65600	1600	5200	3400	4000	2300	2000	1400	1200	U	136000	142000	141000	174000	22200	58200	2920000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	20400	33900	18800	12900	21300	22000	26400	11200	16200	16400	U	U	U	U	U	11500	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	U	ns	U	U	U	U	U	U	U	U	U	U	U	U	2000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	280000	290000	354000	286000	335000	313000	311000	288000	254000	222000	454000	504000	591000	493000	408000	408000	1260000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
TOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	3100	1600	3900	1100	1600	1800	4200	1100	1200	U	131000	152000	161000	151000	33300	54000	3080000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

Notes:
All data in micrograms per liter (μg/L)
NY Standards, Criteria, and Guidance (SCG) Levels are equal to NYS groundwater quality standards per 6NYCRR part 703
Analytical results in red indicate value exceeds NY SCG Level
"U" indicates parameter was not detected above the reported numerical value
"J" indicates estimated value
"R" indicates value was rejected due to relative response factor below quality control limits
"E" indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis
"D" indicates compound identified at a secondary dilution factor
"ns" indicates no sample was collected

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-4					MW-5																												MW-5 (DUP)	NY SCG
	1/91	4/91	7/92	11/93	1/99	1/91	4/91	7/92	8/93	7/96	10/96	11/96	1/97	8/97	10/97	1/98	1/99	5/99	8/99	12/99	11/00	11/01	3/02	6/02	11/02	5/03	12/03	3/04	6/04	9/04	12/04	6/05	12/05	3/02	Level
VOCs																																			
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	27.6J	2.8J	R	R	R	R	27.6	U	
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**1**
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**700**
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**10000**
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	R	U	R	R	R	U	U	
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Chloroethane	U	U	U	U	1.4	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**7**
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	U	**5**
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1-Dichloroethane	U	U	U	U	U	U	U	0.8	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.3J	U	U	U	U	U	U	U	U	U	U	**5**
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**0.6**
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Methylene Chloride	U	U	1.4	U	U	U	U	1.1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Toluene	U	U	U	0.8J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,1,1-Trichloroethane	U	U	U	U	U	U	U	1.6	U	U	U	U	U	U	U	2.2	0.22J	U	U	U	U	0.28J	1.5	U	U	U	2.6	1.4	U	0.54	0.57	U	0.35J	1.4	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**1**
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**2**
Xylenes (Total)	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**15**
ALTERNATIVE GEOCHEMICAL PARAMETERS																																			
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	9200	10200	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	6700	160	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	280	92	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Methane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	8997	3300	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
SOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	97600	3600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	2000	3400	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	406000	386000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
TOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	3900	3600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

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Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-6															MW-6 (DUP)	MW-7																				NY SCG
	4/94	*7/96*	*1/97*	*8/97*	*1/98*	*6/98*	*1/99*	*5/99*	*12/99*	*6/00*	*6/01*	*11/01*	*6/02*	*11/02*	*12/05*	*1/97*	*4/94*	*7/96*	*1/97*	*8/97*	*1/98*	*6/98*	*1/99*	*5/99*	*12/99*	*6/00*	*11/00*	*6/01*	*6/02*	*11/02*	*5/03*	*12/03*	*6/04*	*12/04*	*6/05*	*12/05*	Level
VOCs																																					
Acetone	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	R	R	2.0J	174J	
Benzene	0.4J	**11**	U	**2**	0.74J	U	UJ	0.82J	0.54J	0.35J	0.22J	**1.1**	0.78J	0.34J		U	**2D**	U	U	U	U	U	0.22J	U	U	U	U	U	U	U	U	U	U	U	U	U	**1**
Bromochloromethane	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**700**
Bromodichloromethane	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Bromoform	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**10000**
2-Butanone	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	U	R	R	R	
sec-Butylbenzene	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Carbon Disulfide	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Chloroethane	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	**ABANDONED**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Chloroform	0.07J	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**7**
p-Cymene	U	UJ	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	**5**
Dibromochloromethane	U	UJ	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1-Dichloroethane	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,2-Dichloroethane	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**0.6**
1,1-Dichloroethene	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Ethylbenzene	1	U	U	U	U	U	UJ	U	0.52J	0.34J	0.54J	0.62J	0.32J	0.31J		U	**6D**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Isopropylbenzene	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Methylene Chloride	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
n-Propylbenzene	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Tetrachloroethene	U	UJ	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Toluene	2	U	U	1	0.23J	U	0.28J	U	U	0.32J	U	U	U	U		U	**30D**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	**ABANDONED**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,1,1-Trichloroethane	U	U	U	U	U	U	UJ	U	U	U	0.28J	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**1**
1,2,4-Trimethylbenzene	**14**	U	U	U	U	U	0.31J	U	2	0.73J	2.2	2.6	1.2	1.3		U	3D	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,3,5-Trimethylbenzene	**10**	U	U	U	U	U	0.29J	U	1.3	0.57J	1.4	1.6	0.55J	0.88J		U	**19D**	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Vinyl Chloride	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**2**
Xylenes (Total)	**39**	2.3	U	1.2	0.39J	4.1	2.2J	U	8	3.7	5.5	3.7	1.7	2.7		U	**72D**	U	U	U	U	U	0.23J	U	U	U	U	U	0.26J	U	U	U	U	U	U	U	**15**
ALTERNATIVE GEOCHEMICAL PARAMETERS																																					
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Methane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	**ABANDONED**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
SOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
TOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

Notes:
All data in micrograms per liter (μg/L)
NY Standards, Criteria, and Guidance (SCG) Levels are equal to NYS groundwater quality standards per 6NYCRR part 703
Analytical results in red indicate value exceeds NY SCG Level
"U" indicates parameter was not detected above the reported numerical value
"J" indicates estimated value
"R" indicates value was rejected due to relative response factor below quality control limits
"E" indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis
"D" indicates compound identified at a secondary dilution factor
"ns" indicates no sample was collected

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-8S																								MW-8D																	NY SCG
	4/94	7/96	1/97	8/97	1/98	6/98	1/99	5/99	8/99	12/99	6/00	11/00	6/01	11/01	6/02	11/02	5/03	12/03	3/04	6/04	9/04	12/04	6/05	12/05	4/94	6/04	7/96	1/97	8/97	1/98	6/98	1/99	5/99	12/99	6/00	11/00	6/01	11/01	6/02	11/02	12/05	Level
VOCs																																										
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	14.5J	7.1J	R	R	R	R	28.2J	U	23.6J	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1	1	U	U	U	U	U	UJ	3.6	2	1.2	U	0.32J	U	U	U	ABANDONED	1
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		700
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		10000
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	R	U	R	R	R	R	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		
Chloroethane	U	U	U	U	U	U	U	U	U	0.31J	U	U	U	1.1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.2J	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		7
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		
1,1-Dichloroethane	4D	3.4	3.9	0.64	3.6	U	U	2.6	0.65J	2.4	2.5	2	0.7J	2.5	2.6	1.3	1.3	1	0.93	1.1	1.3	1.2	0.51	1.4	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		0.6
1,1-Dichloroethene	U	U	U	U	0.27J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
Methylene Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2.9J	U	UJ	U	U	U	U	U	U	U	U		5
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	ABANDONED	5
Toluene	U	U	U	U	U	U	U	U	U	U	U	U	U	0.48J	U	U	U	U	U	U	U	U	U	U	4	4	U	U	U	U	U	UJ	U	U	U	U	0.56J	U	U	0.3J		5
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
1,1,1-Trichloroethane	**32D**	**13**	**19**	3.1	**25D**	**53**	**6.1**	**12**	3.2	4.7	**15**	2.1	3.8	1	**18**	**10**	**9.1**	**16.5**	**14.9**	**13.2**	**14.8**	**10.4**	4.5	**6.8**	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		5
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		1
1,2,4-Trimethylbenzene	U	U	4.2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2	2	U	U	0.26	U	U	UJ	U	U	U	U	0.29J	U	0.57J	0.38J		5
1,3,5-Trimethylbenzene	0.3DJ	U	2.8	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**11**	**11**	U	U	U	U	U	UJ	U	U	U	U	0.2J	U	0.35J	0.2J		5
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		2
Xylenes (Total)	U	U	4.2	U	U	U	U	U	U	U	U	U	U	0.48J	U	U	U	U	U	U	U	U	U	U	11	11	U	U	0.38	U	U	UJ	U	U	U	U	0.6J	U	1.8	1.2		15
ALTERNATIVE GEOCHEMICAL PARAMETERS																																										
Chloride	ns	ns	ns	ns	ns	ns	ns	5100	ns	ns	7000	6700	6500	14300	11700	9200	9400	U	U	U	U	U	3100	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Ethane	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	U	U	U	14	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns		
Ethanol	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	U	1800	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	17000	ns	ns	ns	ns	ns		
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	6.3	ns	ns	ns	ns	ns		
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	180	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ABANDONED	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	110	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	U	3000	U	85.4	U	U	U	203	U	U	360	998	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Methane	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	440	4.3	650	U	86D	U	0.28	9.36	0.37	3.04	13.6	0.80	8.68	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Nitrate	ns	ns	ns	ns	ns	ns	ns	330	ns	ns	230	U	370	67	560	490	400	1300	1100	150	1100	330	260	U	ns	32.6	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
SOC	ns	ns	ns	ns	ns	ns	ns	69200	ns	ns	1600	4300	1900	2700	U	1200	1000	3600	1600	U	5200	U	1100	2700	ns	220	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Sulfate	ns	ns	ns	ns	ns	ns	ns	31700	ns	ns	26500	24000	28200	10800	24100	24900	23400	29600	21300	21200	U	22100	18600	25600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Sulfide	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	284000	ns	ns	306000	355000	318000	313000	309000	274000	239000	367000	316000	339000	351000	359000	343000	352000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		
TOC	ns	ns	ns	ns	ns	ns	ns	2200	ns	ns	1600	1700	1800	2300	1300	1200	2400	1500	1200	U	U	U	U	2900	ns	383000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		

Notes:
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Analytical results in red indicate value exceeds NY SCG Level
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"E" indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis
"D" indicates compound identified at a secondary dilution factor
"ns" indicates no sample was collected

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-9S																								MW-9S (DUP)	MW-9D																MW-9D (DUP)	NY SCG
	4/94	*7/96*	*1/97*	*8/97*	*1/98*	*6/98*	*1/99*	*5/99*	*8/99*	*12/99*	*6/00*	*11/00*	*6/01*	*11/01*	*6/02*	*11/02*	*5/03*	*12/03*	*3/04*	*6/04*	*9/04*	*12/04*	*6/05*	*12/05*	*1/98*	*4/94*	*7/96*	*1/97*	*8/97*	*1/98*	*6/98*	*1/99*	*5/99*	*12/99*	*6/00*	*11/00*	*6/01*	*11/01*	*6/02*	*11/02*	*12/05*	*6/00*	**Level**
VOCs																																											
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	3.1J	29.3J	7.7J	R	R	44.6J	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.4J	U	U	0.48	U	U	UJ	U	U	UJ	U	0.24J	U	U	U		UJ	**1**
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**700**
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**10000**
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	26.9J	0.79J	3.8J	5.6J	R	R	R	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	2.2	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	
Chloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.5	**12.0**	**16.4**	**13.0**	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U	A B A N D O N E D	UJ	**5**
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**7**
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	
1,1-Dichloroethane	U	U	U	U	U	1	0.6J	U	1.4J	1	U	U	0.47J	U	U	U	U	4.1	**7.0**	**8.8**	**17.4**	**11.8**	**6.3**	0.39J	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**0.6**
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.2J	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.6J	U	U	0.41	U	U	UJ	U	0.22J	0.22J	U	U	U	U	U		0.22J	**5**
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
Methylene Chloride	U	U	U	U	1.6J	U	U	U	U	U	**12**	U	U	U	3.8BJ	U	U	U	U	U	U	U	U	U	1.4J	U	U	U	U	U	U	UJ	U	0.24J	UJ	U	U	U	U	U		UJ	**5**
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
Toluene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.062J	U	U	U	2	1.3	U	0.84	U	U	0.35J	U	0.27J	0.49J	U	0.72J	U	U	U		0.47J	**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
1,1,1-Trichloroethane	**45D**	**100J**	**65D**	**84D**	**54**	4.5	**50D**	**51**	**87**	**75D**	**48**	**68**	**39D**	**64**	**42**	**70**	**41**	**39.5**	**16.7**	**15.8**	2.2	U	U	U	**55**	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U		UJ	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	UJ	U	U	U	U	U	A B A N D O N E D	UJ	**1**
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.10J	U	0.54	U	2	3.7	1.4	2	U	U	0.69J	U	0.73J	1.2J	U	0.67J	U	U	U		0.89J	**5**
1,3,5-Trimethylbenzene	0.2DJ	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.083J	U	0.27J	U	2	2.4	U	0.72	U	U	0.45J	U	0.50J	0.38J	U	0.57J	U	U	U		0.4J	**5**
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U		U	**2**
Xylenes (Total)	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.15J	0.051J	0.92	U	9	8.6	3.8	5.6	U	U	3.2J	U	3.3	3.4J	1.1	4	U	U	U		3.5J	**15**
ALTERNATIVE GEOCHEMICAL PARAMETERS																																											
Chloride	ns	ns	ns	ns	ns	ns	ns	11200	20500	31700	13100	15400	9100	39700	ns	35500	16100	U	U	U	U	U	9200	22200	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	41600	ns	ns	ns	ns	ns		ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	ns	U	U	0.78	0.30	0.21	0.13	0.11	U	15.4	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns		ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	ns	U	U	1350	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1400	ns	ns	ns	ns	ns		ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	19	ns	ns	ns	ns	ns		ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1400	ns	ns	ns	ns	ns		ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	80	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	350	ns	ns	ns	ns	ns		ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1150	U	U	ns	8030	406	1450	9730	5270	3400	2570	2910	3410	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Methane	ns	ns	ns	ns	ns	ns	ns	8200	U	U	ns	3	U	U	ns	U	U	9.45	65.2	172	303	506	758	9930	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	A B A N D O N E D	ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	1400	1400	1900	1400	1800	1400	2400	ns	2100	1300	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns		ns	
SOC	ns	ns	ns	ns	ns	ns	ns	76800	1600	8000	1400	4200	2000	4300	ns	1800	U	369000	107000	43300	24900	11900	1300	4600	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	5700	ns	ns	ns	ns	ns		ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	25300	41800	32000	20500	25900	27200	36400	ns	19600	31400	U	U	U	U	U	8200	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	16400	ns	ns	ns	ns	ns		ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	U	U	U	ns	U	U	U	ns	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns		ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	286000	316000	371000	306000	352000	318000	334000	ns	289000	248000	757000	586000	479000	428000	425000	385000	362000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	2720000	ns	ns	ns	ns	ns		ns	
TOC	ns	ns	ns	ns	ns	ns	ns	2300	1700	6200	1600	1400	2000	3600	ns	1600	U	401000	107000	37200	28800	12400	1300	4900	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	5900	ns	ns	ns	ns	ns		ns	

Notes:
All data in micrograms per liter (µg/L)
NY Standards, Criteria, and Guidance (SCG) Levels are equal to NYS groundwater quality standards per 6NYCRR part 703
Analytical results in red indicate value exceeds NY SCG Level
"U" indicates parameter was not detected above the reported numerical value
"J" indicates estimated value
"R" indicates value was rejected due to relative response factor below quality control limits
"E" indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis
"D" indicates compound identified at a secondary dilution factor
"ns" indicates no sample was collected

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-10S																									MW-10D															MW-10D (DUP)	NY SCG
	7/96	*9/96*	*10/96*	*11/96*	*12/96*	*1/97*	*8/97*	*10/97*	*1/98*	*1/99*	*5/99*	*8/99*	*12/99*	*11/00*	*11/01*	*3/02*	*11/02*	*5/03*	*12/03*	*3/04*	*6/04*	*9/04*	*12/04*	*6/05*	*12/05*	*7/96*	*9/96*	*10/96*	*11/96*	*12/96*	*1/97*	*8/97*	*10/97*	*1/98*	*1/99*	*12/99*	*11/00*	*11/01*	*11/02*	*12/05*	*12/96*	Level
VOCs																																										
Acetone	ns	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	9.1J	6.2J	4.0J	R	R	2.6J	9.4J	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.33J	U	U	0.28J	U	U	U	0.19J	0.14J	0.11J	0.13J	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**1**
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**ABANDONED**	U	**700**
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**10000**
2-Butanone	ns	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	R	U	R	R	R	R	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Carbon Disulfide	ns	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	
Chloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**7**
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.31J	ns	ns	ns	ns	ns	ns	ns	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**0.6**
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Ethylbenzene	2.5	0.68J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.29J	U	0.3J	U	U	U	0.18J	0.078J	0.075J	0.096J	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Methylene Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.28J	0.36J	U	0.4J	U	U	U	0.19J	0.091J	0.093J	0.10J	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**ABANDONED**	U	**5**
Toluene	**6.8**	1.7	U	U	U	U	U	U	U	U	U	U	U	U	0.30J	U	U	0.26J	U	U	U	0.099J	U	U	U	U	0.55J	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	.24J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**1**
1,2,4-Trimethylbenzene	**7.4**	1.5	U	U	U	U	U	U	U	U	U	U	U	2.9	4.8	**5.8**	1.6	**5.8**	1.6	0.47J	1.4	2.8	1.1	1.4	1.6	U	0.32J	U	0.36J	U	U	U	U	U	0.70J	0.24J	U	1.1	0.78J		U	**5**
1,3,5-Trimethylbenzene	**7.6**	1.4	U	0.2J	U	U	U	U	U	U	U	U	U	1.8	2.4	4	1.1	3.3	0.9	U	0.52	1.4	0.58	0.46J	0.66	U	0.26J	U	0.41J	U	U	U	U	0.16J	0.50J	U	U	0.92J	0.74J		U	**5**
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	**2**
Xylenes (Total)	**40**	11	U	0.54J	U	U	U	U	U	0.26J	U	U	U	5.2	8.4	14	5.1	**18**	4.1	1.5	3.5	5.6	2.1	1.8	2.2	1.6	1	U	0.96J	U	U	0.34	0.26J	0.14J	1.8	0.57J	1.4	1.9	1.5		U	**15**
ALTERNATIVE GEOCHEMICAL PARAMETERS																																										
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	7800	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	**ABANDONED**	ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	140	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Methane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	105	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
SOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	124000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1200	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	508000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
TOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	2100	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	

Notes:

All data in micrograms per liter (µg/L)

NY Standards, Criteria, and Guidance (SCG) Levels are equal to NYS groundwater quality standards per 6NYCRR part 703

Analytical results in red indicate value exceeds NY SCG Level

"U" indicates parameter was not detected above the reported numerical value

"J" indicates estimated value

"R" indicates value was rejected due to relative response factor below quality control limits

"E" indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis

"D" indicates compound identified at a secondary dilution factor

"ns" indicates no sample was collected

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-11S																							MW-11S (DUP)			MW-11D											MW-11D (DUP)	NY SCG
	7/96	9/96	10/96	11/96	12/96	1/97	8/97	10/97	1/98	1/99	8/99	12/99	6/00	11/00	6/01	6/02	11/02	5/03	12/03	6/04	12/04	6/05	12/05	9/96	10/96	11/96	7/96	11/96	1/97	8/97	10/97	1/98	1/99	12/99	11/00	11/02	12/05	10/97	Level
VOCs																																							
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	19.9J	R	R	R		U	U	U	U	U	U	U	U	U	U	U	U	U		U	
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	1
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	700
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ABANDONED	U	U	U	U	U	U	U	U	U	U	U	U	U	ABANDONED	U	10000
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	U	R	R		U	U	U	U	U	U	U	U	U	U	U	U	U		U	
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	
Chloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	7
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	0.6
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
Methylene Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
Toluene	U	0.36J	U	0.22J	U	U	U	U	U	U	U	U	0.24J	U	U	U	U	U	U	U	0.16J	0.073J		0.38J	U	0.18J	U	U	U	U	U	U	U	U	U	U		U	5
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	5
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ABANDONED	U	U	U	U	U	U	U	U	U	U	U	U	U	ABANDONED	U	5
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	1
1,2,4-Trimethylbenzene	4.1	0.58J	U	1.2	U	U	0.3	0.38J	0.31J	0.90J	0.42J	U	U	U	U	0.23J	0.38J	U	0.5	0.3J	0.43J	0.14J		0.49J	1.2	1.2	U	U	U	U	U	U	U	U	U	U		U	5
1,3,5-Trimethylbenzene	4.4	1	1.2	1	U	U	0.45	U	0.41J	0.40J	0.20J	U	U	U	U	U	U	U	U	U	0.23J	0.083J		0.99J	1.3	1.1	U	U	U	U	U	U	U	U	U	U		U	5
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		U	U	U	U	U	U	U	U	U	U	U	U	U		U	2
Xylenes (Total)	3.6	0.65J	U	0.93J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U		0.65J	U	0.86J	U	U	U	U	U	U	U	U	U	U		U	15
ALTERNATIVE GEOCHEMICAL PARAMETERS																																							
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Methane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ABANDONED	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ABANDONED	ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
SOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	
TOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns		ns	

Notes:
All data in micrograms per liter (μg/L)
NY Standards, Criteria, and Guidance (SCG) Levels are equal to NYS groundwater quality standards per 6NYCRR part 703
Analytical results in red indicate value exceeds NY SCG Level
"U" indicates parameter was not detected above the reported numerical value
"J" indicates estimated value
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"E" indicates compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis
"D" indicates compound identified at a secondary dilution factor
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Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	MW-12																									MW-13												MW-13 (DUP)		NY SCG
	10/96	*11/96*	*12/96*	*1/97*	*8/97*	*10/97*	*1/98*	*1/99*	*5/99*	*8/99*	*12/99*	*6/00*	*11/00*	*6/01*	*11/01*	*6/02*	*11/02*	*5/03*	*12/03*	*3/04*	*6/04*	*9/04*	*12/04*	*6/05*	*12/05*	*7/00*	*11/00*	*6/01*	*11/01*	*6/02*	*11/02*	*5/03*	*12/03*	*6/04*	*12/04*	*6/05*	*12/05*	*7/00*	*11/00*	Level
<u>VOCs</u>																																								
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	R	12.3J	R	R	R	R	UJ	U	U	U	U	U	U	30.4J	7.9J	27.2J	U	182J	UJ	U	
Benzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**1**
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**700**
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	7J	U	U	U	U	U	U	U	U	U	U	U	3.5J	U	
Bromoform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	7J	U	U	U	U	U	U	U	U	U	U	U	3.5J	U	**10000**
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	R	R	U	R	R	R	R	UJ	U	U	U	U	U	U	R	U	R	R	R	UJ	U	
sec-Butylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	
Chloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
Chloroform	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**42J**	U	0.36J	U	U	U	U	U	U	U	U	U	**23J**	1.9	**7**
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	UJ	U	U	U	U	0.24J	U	ns	ns	ns	ns	ns	UJ	U	**5**
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	1.8J	U	U	U	U	U	U	U	U	U	U	U	UJ	U	
1,1-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**0.6**
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
Ethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	0.22J	U	U	U	U	U	U	U	U	UJ	U	**5**
Isopropylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	0.078J	U	UJ	U	**5**
Methylene Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
n-Propylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	0.22J	U	U	U	U	U	U	0.097J	U	UJ	U	**5**
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
Toluene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.13J	U	U	U	U	U	1.4J	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**1**
1,2,4-Trimethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**6.2J**	U	2.2	4.7	2.6	1.6	1.1	0.49	1.2	0.81	1.6	0.32J	2.8J	2.3	**5**
1,3,5-Trimethylbenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.75	U	U	U	U	U	4.2J	U	3.4	U	U	U	U	U	U	0.10J	U	U	UJ	2.2	**5**
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	**2**
Xylenes (Total)	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	11J	U	1.7	0.91J	0.6J	U	U	U	0.5	0.23J	0.34J	0.85J	5.1J	3.5	**15**
<u>ALTERNATIVE GEOCHEMICAL PARAMETERS</u>																																								
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	8300	ns	12800	9700	8900	7800	11700	9300	16700	9200	U	U	U	U	U	10300	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	U	U	U	U	6.8	U	U	U	1.3	1.4	1.0	1.0	0.9	0.7	3.77	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	U	24000	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	4.4	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	800	150	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	590	ns	80	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	698	U	1200	54.6	66.7	104	2610	U	U	U	U	204	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Methane	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	14000	ns	6100D	3500	4500D	580E	6100D	750	1150	883	1940	652	830	262	3200	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	U	53	U	U	U	U	U	U	U	U	U	U	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
SOC	ns	ns	ns	ns	ns	ns	ns	ns	74800	ns	5200	1300	3500	1600	2200	U	4100	U	2600	U	U	5200	U	U	U	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	49400	ns	34400	40700	56100	57800	18800	34400	28900	53700	44600	45900	52400	40500	42300	47500	41500	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	U	ns	U	ns	U	1300	3700	1900	2600	U	3700	2300	U	2500	U	U	3700	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	1000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	303000	ns	351000	313000	337000	335000	307000	325000	278000	266000	371000	388000	333000	357000	336000	362000	353000	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
TOC	ns	ns	ns	ns	ns	ns	ns	ns	2000	ns	5400	1200	1100	1600	1800	U	2300	U	1200	1000	U	U	U	U	1900	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

<u>Notes:</u>
All data in micrograms per liter (µg/L)
NY Standards, Criteria, and Guidance (SCG) Levels are equal to NYS groundwater quality standards per 6NYCRR part 703
Analytical results in red indicate value exceeds NY SCG Level
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"D" indicates compound identified at a secondary dilution factor
"ns" indicates no sample was collected

Table 1
Historical Groundwater Analytical Data Summary
Tennessee Gas Pipeline
Station 237 - Clifton Springs, New York

PARAMETERS	BH-14	PZ-1	PZ-2	PZ-2 (DUP)	PZ-3	PZ-4	PZ-5	BURGESS			BURGESS (DUP)	CURRAN	CULVERT WELL	FAUST 1					FAUST 2			PIERCE			SULLIVAN			WILSON		NY SCG
	7/00	*11/01*	*11/01*	*11/01*	*11/01*	*11/01*	*11/01*	*7/96*	*5/99*	*5/03*	*5/99*	*11/02*	*6/00*	*7/96*	*5/99*	*8/99*	*6/00*	*5/03*	*7/96*	*5/99*	*6/00*	*7/96*	*5/99*	*11/02*	*7/96*	*5/99*	*11/02*	*7/96*	*5/99*	Level
VOCs																														
Acetone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Benzene	U	U	U	U	U	U	0.32J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**1**
Bromochloromethane	U	U	U	U	U	U	U	U	U	U	U	0.31J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**700**
Bromodichloromethane	U	U	U	U	U	U	U	U	U	U	U	3.1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Bromoform	U	U	U	U	U	U	U	U	U	U	U	1.2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**10000**
2-Butanone	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
sec-Butylbenzene	U	U	U	U	U	U	0.28J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Carbon Disulfide	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Chloroethane	U	U	U	U	U	1.4	2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Chloroform	5.5	U	U	U	U	U	U	U	U	U	U	1.7	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**7**
p-Cymene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Dibromochloromethane	U	U	U	U	U	U	U	U	U	U	U	4	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1-Dichloroethane	U	1	0.37J	0.43J	0.45J	0.99J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,2-Dichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**0.6**
1,1-Dichloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Ethylbenzene	1	U	U	U	U	0.64J	2.1	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Isopropylbenzene	U	U	0.22J	0.23J	U	0.33J	0.92J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Methylene Chloride	U	U	U	U	U	U	U	U	U	U	U	0.26J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
n-Propylbenzene	U	U	0.22J	0.22J	U	0.39J	1.2	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Tetrachloroethene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.21J	U	U	U	U	U	**5**
Toluene	**11**	U	U	U	U	0.62J	0.61J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,2,3-Trichlorobenzene	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,1,1-Trichloroethane	U	U	U	U	0.46J	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**5**
1,1,2-Trichloroethane	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**1**
1,2,4-Trimethylbenzene	**6.8**	U	1	1	U	**7.6**	**6.7**	U	U	U	U	U	U	U	0.91J	U	0.86J	0.33J	U	U	U	U	U	U	U	U	U	U	U	**5**
1,3,5-Trimethylbenzene	5	U	U	U	U	**5.3**	2.2	U	U	U	U	U	U	U	0.42J	U	0.53J	U	U	U	U	U	U	U	U	U	U	U	U	**5**
Vinyl Chloride	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	**2**
Xylenes (Total)	12	U	0.91J	0.97J	U	**15**	11	U	U	U	U	U	U	U	0.52J	U	0.64J	0.33J	U	U	U	U	U	U	U	U	U	U	U	**15**
ALTERNATIVE GEOCHEMICAL PARAMETERS																														
Chloride	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethanol	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ethene	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferric Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Ferrous Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Iron	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Methane	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Nitrate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
SOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfate	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfide	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Sulfite	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
Total Alkalinity	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	
TOC	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

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