



# Progress Energy

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Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2  
Renewed Facility Operating License Nos. DPR-71 and DPR-62  
Docket Nos. 50-325 and 50-324  
Radiological Environmental Operating Report for 2010

Ladies and Gentlemen:

In accordance with Technical Specification (TS) 5.6.2 for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc., is submitting the enclosed Radiological Environmental Operating Report for 2010.

No regulatory commitments are contained in this submittal. Please refer any questions regarding this submittal to Mr. Lee Grzeck, Acting Supervisor - Licensing/Regulatory Programs, at (910) 457-2487.

Sincerely,

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Enclosure:

Radiological Environmental Operating Report for 2010

JE25  
NRK

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BSEP 11-0054 / Page 2

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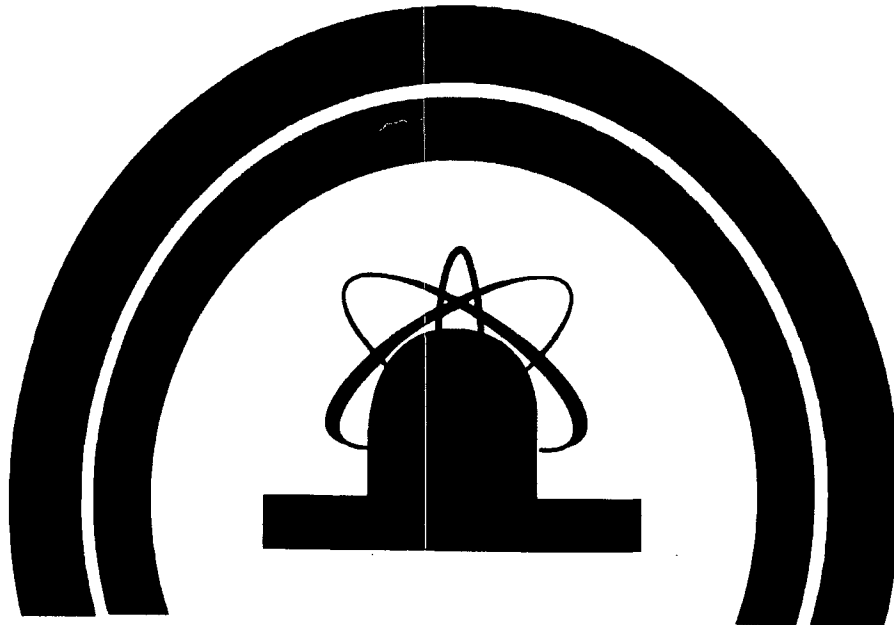
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## **Radiological Environmental Operating Report for 2010**

**RADIOLOGICAL  
ENVIRONMENTAL OPERATING  
REPORT  
2010**

**BRUNSWICK STEAM ELECTRIC PLANT**



**CAROLINA POWER & LIGHT COMPANY**

**Now Doing Business as**

**PROGRESS ENERGY CAROLINAS, INC.**

**SHEARON HARRIS ENERGY &  
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CAROLINA POWER & LIGHT COMPANY  
NOW DOING BUSINESS AS  
PROGRESS ENERGY CAROLINAS, INC.  
NEW HILL, NORTH CAROLINA**

**RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT  
FOR  
BRUNSWICK STEAM ELECTRIC PLANT  
JANUARY 1 THROUGH DECEMBER 31, 2010**

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## **EXECUTIVE SUMMARY**

The Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2, is operated by Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc., under licenses granted by the Nuclear Regulatory Commission (NRC). BSEP Technical Specification 5.6.2 and the BSEP Offsite Dose Calculation Manual (ODCM) establish the requirements of the Radiological Environmental Monitoring Program (REMP). This report provides the results of the REMP from January 1, 2010 through December 31, 2010.

The REMP was established in 1973. Radiation and radioactivity in various environmental media have been monitored for more than 35 years, including monitoring in excess of a year prior to commencing operation. Monitoring is also provided for control locations which would not be impacted by operations of BSEP. Using the data from the control locations and the historical data collected prior to operation, analyses of data from locations which could potentially be impacted by the operations of BSEP were performed. Radiation levels show no measurable change from pre-operational radiation levels.

Monitoring results for environmental media are summarized as follows:

- Air-monitoring results are similar or less than the concentrations of radioactivity from pre-operation monitoring. These observations are also consistent with past operational data.
- Milk was unavailable due to no milk (milch) animals (goat or cow) currently identified within the environs of the plant; therefore, no exposure pathway exists.
- Terrestrial vegetation includes broadleaf vegetation from indicator and control locations. Results indicate that Cesium (Cs)-137 activity was detected in a control sample, but no other gamma activity was detected in any sample except for K-40 (potassium-40) and other naturally occurring gamma activity.
- Aquatic organism monitoring includes fish (free swimmers and bottom feeders), invertebrates (shellfish (SH)), and Benthic organisms (organisms that live on the bottom of the ocean (BO)). Results indicated no detectable plant - related activity.
- Surface water results indicate that some surface water samples detect the presence of tritium, which is attributed to plant operations. Refer to the Interpretations and Conclusions Section / Surface Water and Figure 17.
- Shoreline Sediment results indicate that a shoreline sediment indicator sample detected the presence of Cs-137 activity. No other gamma activity was detected in any sample except for K-40 (potassium-40) and other naturally occurring gamma activity. Therefore, results indicated no detectable plant-related activity.
- External radiation dose showed no measurable change from pre-operational data.

The continued operation of BSEP has not significantly contributed radiation or the presence of radioactivity in the environmental media monitored. The measured concentrations of radioactivity and radiation are well within applicable regulatory limits.

# **RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM**

## **PURPOSE AND REQUIREMENTS FOR THE RADIOLOGICAL MONITORING PROGRAM**

Although the operation of a nuclear generating station results in the raising of background radiation only a small amount, it is important to measure these emissions of radioactivity and radiation to assess their impact on the surrounding populations. The purpose of the REMP is to measure accumulation of radioactivity in the environments, to determine whether this radioactivity is the result of operations of BSEP and to assess the potential dose to the off-site population based on the cumulative measurements of radioactivity of plant origin. Radiological monitoring programs provide an additional verification of the containment and radiological controls of nuclear generating stations.

The REMP was established in 1973 and continues to collect samples and evaluate them.

Requirements are established for the radiological monitoring program as follows:

- Technical Specifications
- Off-Site Dose Calculation Manual (ODCM)
- Various procedures

Additional guidance regarding the radiological monitoring program may be found in the following:

- NRC Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I"
- NRC Regulatory Guide 4.13, "Performance, Testing, and Procedural Specifications for Thermoluminescence Dosimetry: Environmental Applications"
- NRC Regulatory Guide 4.15, "Quality Assurance for Radiological Monitoring Programs (Normal Operations) - Effluent Streams and the Environment"

## General Site Description

BSEP consists of two boiling water reactors with a design rating of 2923 megawatts thermal. Commercial production was initiated by Unit 2 on November 3, 1975 and by Unit 1 on March 18, 1977. BSEP is located in Brunswick County, North Carolina. The site is along state route 87 approximately two and a half miles north of Southport and is displayed on the map of southeastern North Carolina (Figure 1). The community of Boiling Spring Lakes is about three miles northwest of the site. The towns of Caswell Beach and Oak Island are on a barrier island south of the plant. The site is also approximately 16 miles south of Wilmington, North Carolina.



Figure 1: Location of Brunswick Steam Electric Plant

The Cape Fear River is east of the plant, and cooling water is drawn from the river through a canal. The cooling water is discharged to the Atlantic Ocean through a canal, pumping station, and piping. The discharge point is south of the town of Caswell Beach.

The plant site varies in elevation from sea level to 30 feet above mean sea level (MSL). It is surrounded by extensive marshes. The lower Cape Fear River is an important nursery area for shellfish, and other marine species.

The local economy supports significant recreational, industrial, agricultural, and government contributions. There is well-developed recreational use of the barrier islands south and east of the site. Fishing and boating are popular activities. Commercial fishing is also an important industry in the community. Agriculture utilizes some of the land within 50 miles of the site; such as small truck farms, cattle, poultry, and row crops including corn, soybeans and tobacco. Industrial activity includes the Archer-Daniels-Midland Chemical (ADM) Company, a manufacturer of citric acid, located one and a half miles southeast of the plant. In conjunction with the citric acid plant is a small electrical generating station operated by Primary Energy. This coal-fired station is composed of two units rated at 55 MWe each.

Transportation is a significant industry in the local economy, with the Port of Wilmington north of the site. The shipping channel is just east of the site in the Cape Fear River. Also, the Sunny Point Military Ocean Terminal (MOT) is located approximately three miles north of the plant site on the Cape Fear River.

## **RADIOLOGICAL MONITORING PROGRAM QUALITY ASSURANCE**

A required component of the REMP is the Quality Assurance Program. The standards for the quality assurance program are established in NRC Regulatory Guide (R.G.) 4.15, "Quality Assurance for Radiological Monitoring Programs." According to R.G. 4.15, the purpose of the quality assurance program is "(1) to identify deficiencies in the sampling and measurement processes to those responsible for these operations so that corrective action can be taken, and (2) to obtain some measure of confidence in the results of the monitoring programs in order to assure the regulatory agencies and the public that the results are valid." This provides the opportunity to implement corrective actions that address possible deficiencies. Examples of the activities of the quality assurance program include:

- regular review of sample collection and records,
- regular review of laboratory procedures and methods,
- participation in the Eckert & Ziegler Analytics Environmental Cross-Check Program, which provides an independent assessment of the quality of laboratory results,
- BSEP participates in the Eckert & Ziegler Analytics Radiochemistry Cross-Check Program,
- GEL Laboratories, LLC (GEL) participates in an Inter-laboratory, an Intra-laboratory, and a Third Party Cross Check sample program.
  - Department of Energy Mixed Analyte Performance Evaluation Program (MAPEP),
  - US Environmental Protection Agency Discharge Monitoring Report, Quality Assurance Program (DMR-QA),
  - ERA's InterLaB RadChem Proficiency Testing Program,
  - Environmental Cross Check Program administered by Eckert & Ziegler Analytics, Inc. of Atlanta, and
- the use of known concentrations of radioactivity in test samples by the laboratory to ensure consistent quality results on an ongoing basis.

## **RADIOLOGICAL MONITORING PROGRAM GENERAL DESCRIPTION**

Although the contribution to background radiation is small, Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc. has established this program to measure the exposure pathways to man. An exposure pathway describes the source of the radiological exposure. The primary forms of potential radiological emissions from the plant are airborne and liquid discharge. The following pathways are monitored: external dose, ingestion of radioactive materials, and the inhalation of radioactive material. Specific methods and different environmental media are required to assess each pathway. Table 1 provides a list of the media used to assess each of these pathways.

**Table 1**  
**Media Used to Assess Exposure Pathways to Man**

<b>Pathway of Exposure to Man</b>	<b>Media Sampled</b>
<b>External Dose</b>	Thermoluminescent Dosimetry (TLD) Shoreline Sediment
<b>Ingestion</b>	Broadleaf Vegetation Fish and Invertebrates Surface Water
<b>Inhalation</b>	Air Samples (Particulate and Radioiodine)

### **Sampling Locations**

Sampling locations are chosen based upon meteorological factors, preoperational monitoring, and results of the land use surveys. A number of locations are selected as controls. Control stations are selected because they are very unlikely to be affected by operation of the plant. Sample locations may be seen in Figures 2 through 10. A description of each sample location may be found in Table 2.

## Radiological Sampling Locations



Figure 2: Radiological Sampling Locations (Distant from Plant)

Stations not illustrated:

204 (Sutton Plant in Wilmington) (Control Air Station), 206 (not ODCM required)

703, 704, 705 (Location not Specified in the Atlantic Ocean)(Control Fish Station)

802 (Location not specified) (Control Vegetation)

## Radiological Sampling Locations

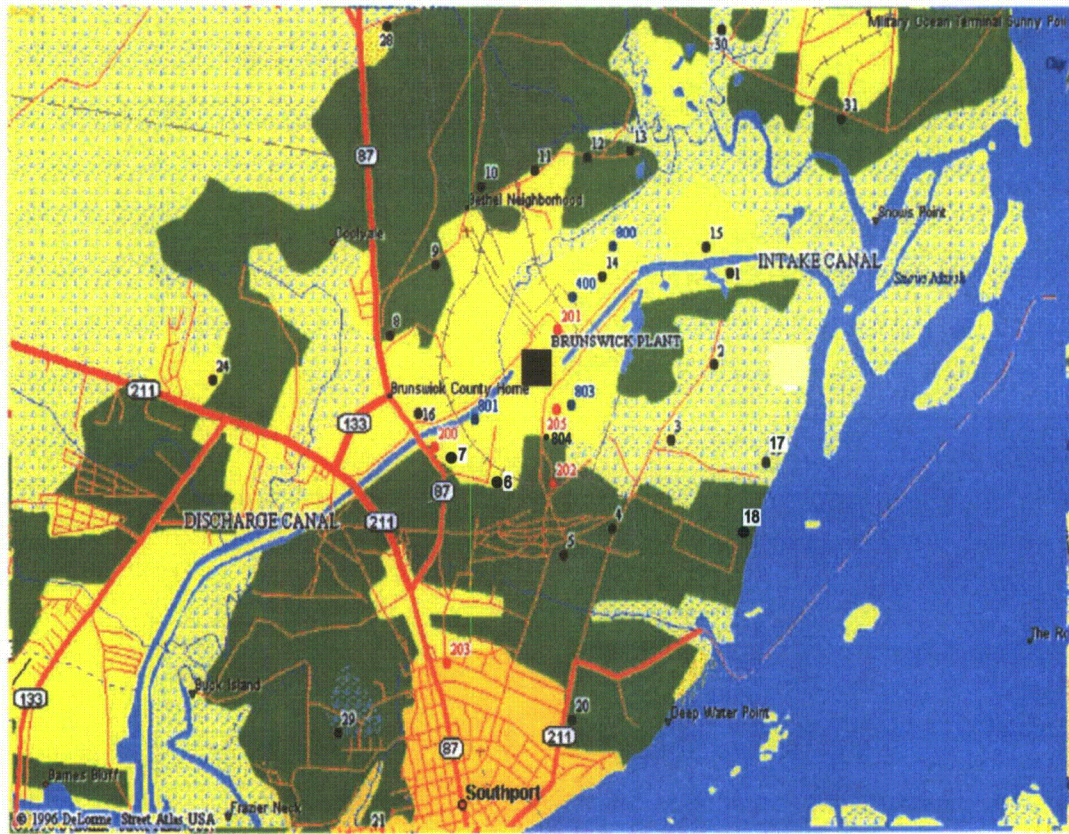


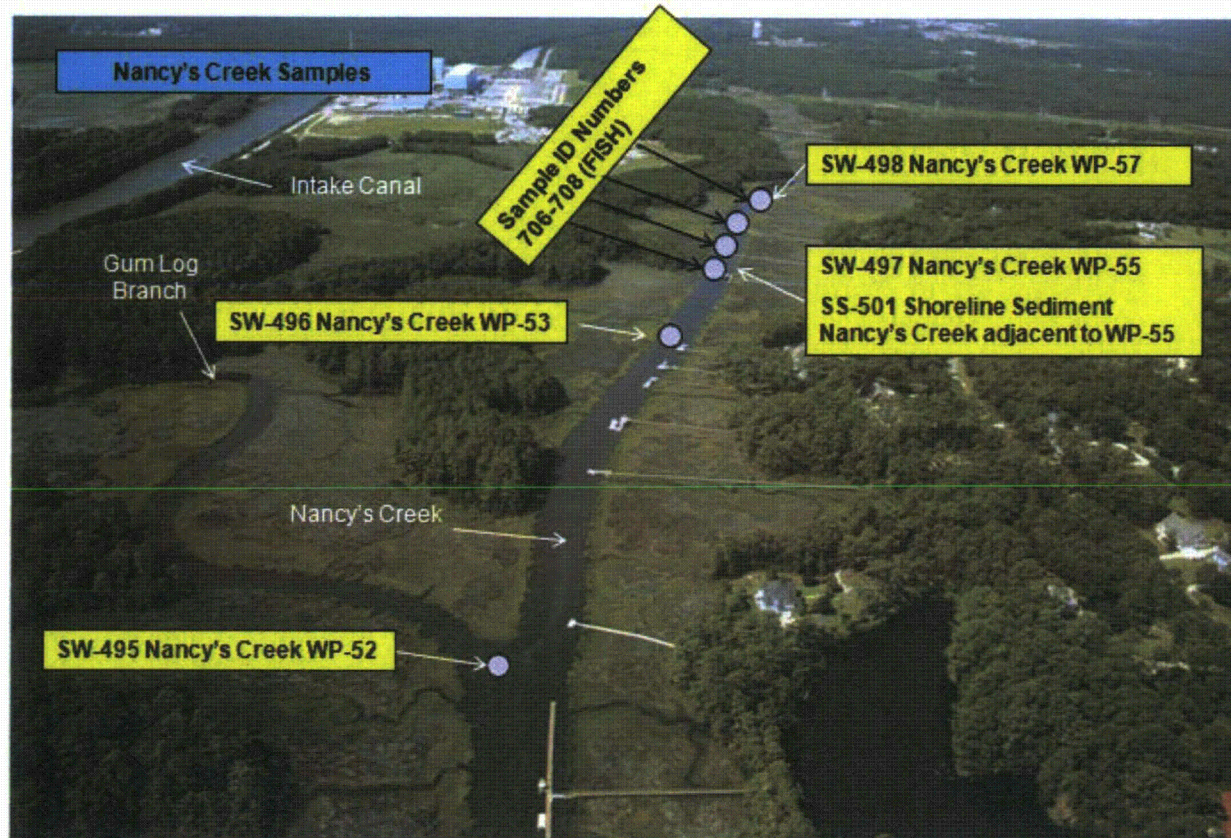
Figure 3 (Nearest Plant) is an expanded view of the previous figure (Figure 2 page 7).



**Figure 4 BSEP Environmental Sampling Locations  
Independent Spent Fuel Storage Installation (ISFSI) TLDS**

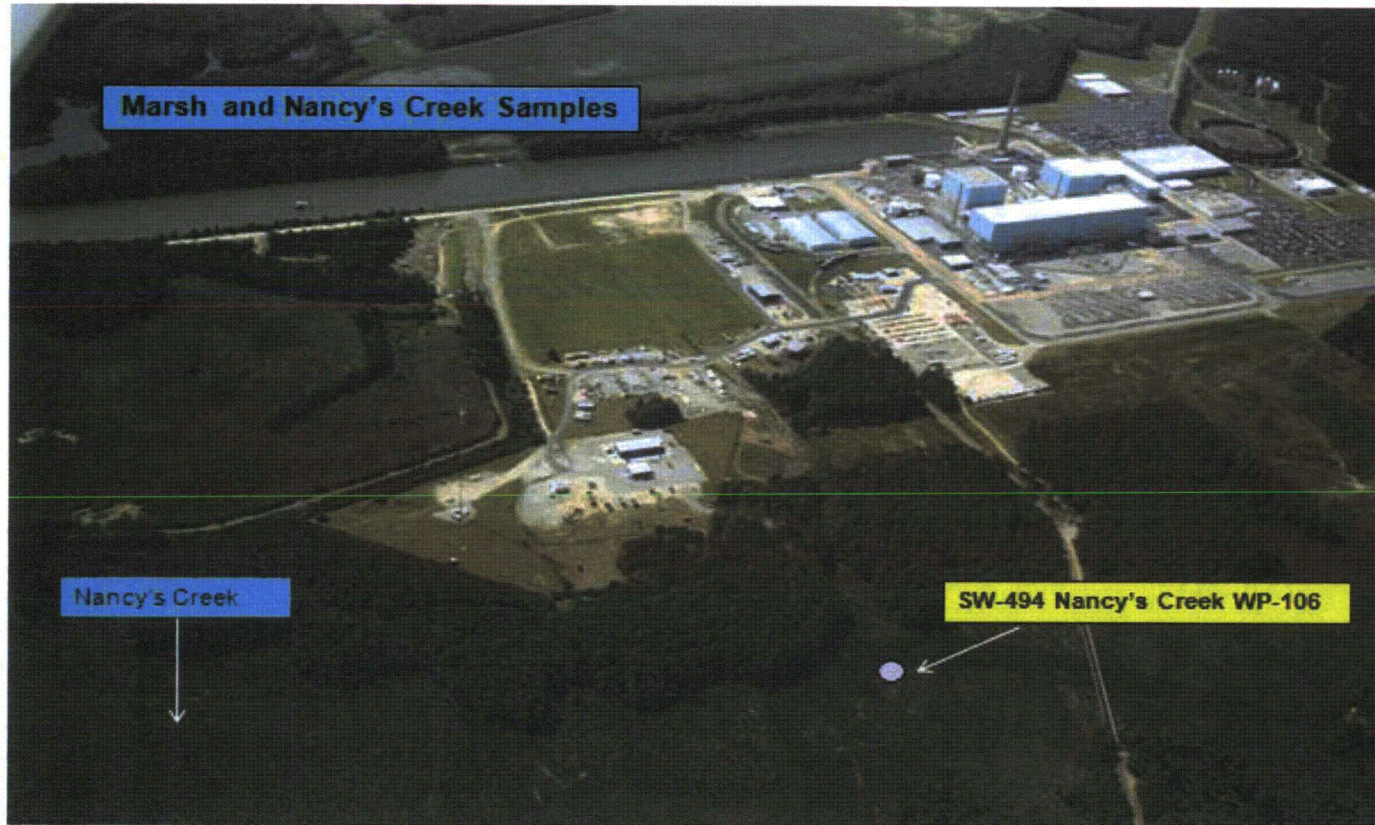


**Figure 5 BSEP Environmental Sampling Locations**

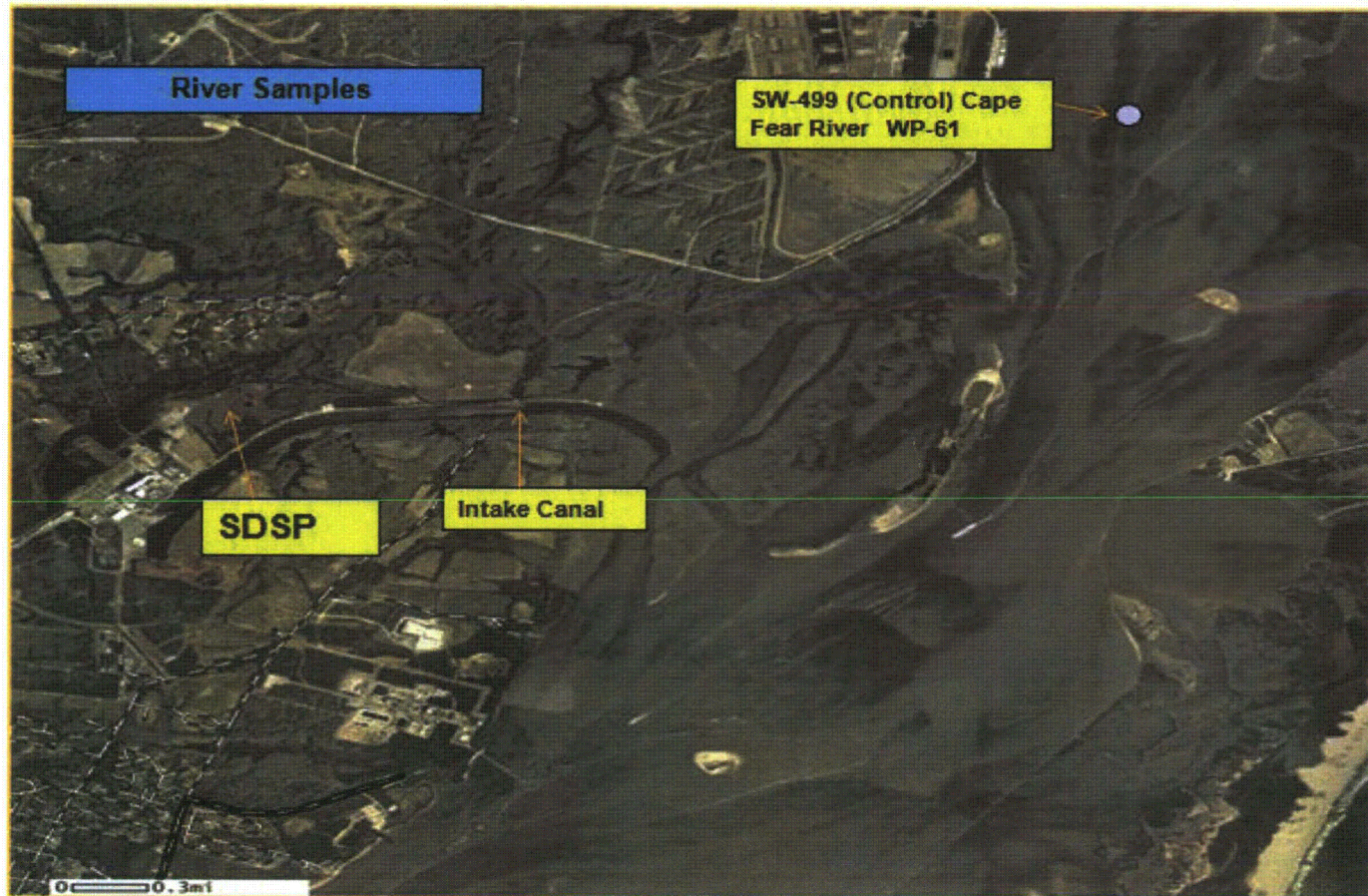


BSEP Environmental Sample Locations

**Figure 6 BSEP Environmental Sampling Locations (continued)**



**Figure 7 BSEP Environmental Sampling Locations (continued)**



**SDSP: Storm Drain Stabilization Pond**

**Figure 8 BSEP Environmental Sampling Locations – Wells**

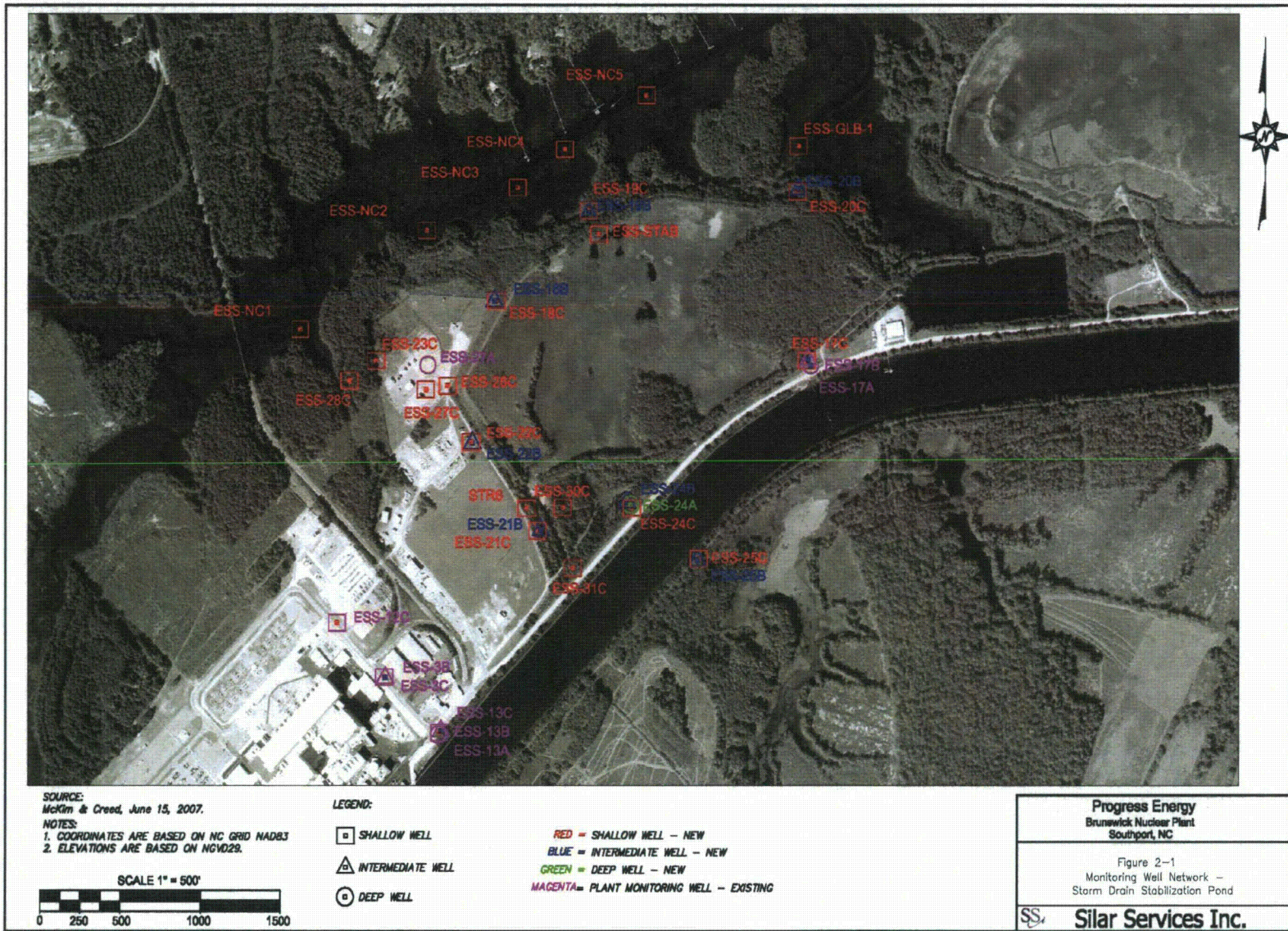
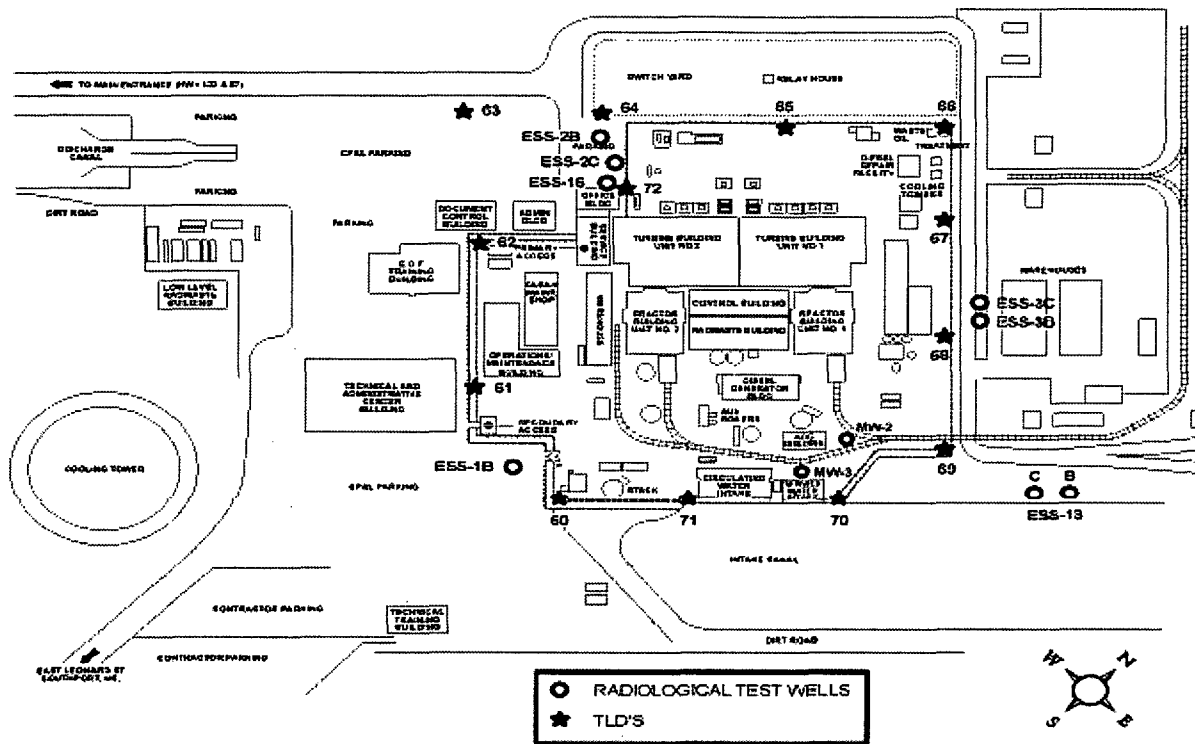


Figure 9 BSEP Environmental Sampling Locations – Wells (continued)



Figure 10 BSEP Environmental Sampling Locations – Wells (continued)



**NOTE:** Well ESS-17 is located near the Biology Lab.

**Table 2**  
**Brunswick Steam Electric Plant**  
**Radiological Monitoring Sampling Locations**

Sample Type	Location & Description	Frequency	Sample Size	Analysis
Air Cartridge (AC)	200--1.0 miles WSW Visitors Center 201--0.5 miles NE PMAC 202--1.0 miles S Substation on Construction Rd. 203--2.0 miles SSW Southport substation 204--22.4 miles NNE Sutton Plant* 205--0.6 miles SSE Spoil Pond 206--11.3 miles NW from Plant @ Brunswick County Government Complex	Weekly (Continuous Sampling)	(270 m <sup>3</sup> )	Iodine-131
Air Particulate (AP)	200--1.0 miles WSW Visitors Center 201--0.5 miles NE PMAC 202--1.0 miles S Substation on Construction Rd. 203--2.0 miles SSW Southport substation 204--22.4 miles NNE Sutton Plant* 205--0.6 miles SSE Spoil Pond 206--11.3 miles NW from Plant @ Brunswick County Government Complex	Weekly (Continuous Sampling)  Quarterly	(270 m <sup>3</sup> )	Gross Beta (Weekly)  Composite Gamma (Quarterly)
Fish (FI) and Invertebrates	700--5.5 miles SSW Atlantic Ocean @ discharge (free swimmers) 701--5.5 miles SSW Atlantic Ocean @ discharge (bottom feeders) 702--5.5 miles SSW Atlantic Ocean @ discharge (invertebrates) 703--Atlantic Ocean; location not specified* (free swimmers) 704--Atlantic Ocean; location not specified* (bottom feeders) 705--Atlantic Ocean; location not specified* (invertebrates) 706--Nancy's Creek; location not specified (free swimmers) 707--Nancy's Creek; location not specified (bottom feeders) 708--Nancy's Creek; location not specified (invertebrates)	Semiannual (In Season)      Annual	500 grams (wet)	Gamma (Edible portions)      Gamma Tritium (Edible portions)
Broadleaf Vegetation (BL)	800--0.7 miles NE intake canal 801--0.8 miles SW discharge canal 802--10.1 miles; location not specified* 803--0.6 miles SSE Spoil Pond 804--0.7 miles S Leonard Street plant exit adjacent to RR tracks	Monthly (As available)	360 grams (wet)	Gamma Iodine-131
Shoreline Sediment (SS)	500--5.0 miles SSW discharge; beach near OD pumps 501--Nancy's Creek, Adjacent to WP-55, Near Storm Drain Stabilization Pond	Semiannual  Annual	575 grams	Gamma
Surface Water (SW)	400--0.6 miles NE Intake Canal* 401--4.9 miles SSW discharge canal @ OD Pumps	Monthly Composite	4 liters	Gamma Tritium (Quarterly)

\* Control Stations



**Table 2 (Continued)**  
**Brunswick Steam Electric Plant**  
**Radiological Monitoring Sampling Locations**

Sample Type	Location & Description	Frequency	Sample Size	Analysis
Surface Water (SW) (Continues)	494--Nancy's Creek – WP-106 495--Nancy's Creek – WP-52 496--Nancy's Creek – WP-53 497--Nancy's Creek – WP-55 498--Nancy Creek – WP-57 499--Cape Fear River – WP-61*	Grab Sample, Weekly Monthly	N/A	Tritium (Weekly) Gamma (Monthly)
Groundwater (GW)	402--Monitoring Well ESS-2C, 0.17 miles W 403--Monitoring Well ESS-16, 0.16 miles W 404--Monitoring Well ESS-1B, 0.16 miles SW 405--Monitoring Well ESS-2B, 0.17 miles W 406--Monitoring Well ESS-3B, 0.08 miles N 407--Monitoring Well ESS-13B, 0.06 miles ENE 408--Monitoring Well ESS-13C, 0.06 miles ENE 409--Monitoring Well ESS-17A, 0.65 miles NE 410--Monitoring Well ESS-17B, 0.65 miles NE 411--Monitoring Well ESS-17C, 0.65 miles NE 412--Monitoring Well ESS-18B, Near SDSP 413--Monitoring Well ESS-18C, Near SDSP 414--Monitoring Well ESS-19B, Near SDSP 415--Monitoring Well ESS-19C, Near SDSP 416--Monitoring Well ESS-20B, Near SDSP 417--Monitoring Well ESS-20C, Near SDSP 418--Monitoring Well ESS-21B, Near SDSP 419--Monitoring Well ESS-21C, Near SDSP 420--Monitoring Well ESS-22B, Near SDSP 421--Monitoring Well ESS-22C, Near SDSP 422--Monitoring Well ESS-23C, Near SDSP 423--Monitoring Well ESS-24A, Near SDSP 424--Monitoring Well ESS-24B, Near SDSP 425--Monitoring Well ESS-24C, Near SDSP 426--Monitoring Well ESS-25B, Near SDSP 427--Monitoring Well ESS-25C, Near SDSP 428--Monitoring Well ESS-26C, Near SDSP 429--Monitoring Well ESS-27A, Near SDSP 430--Monitoring Well ESS-27C, Near SDSP 431--Monitoring Well ESS-30C, Near SDSP 432--Monitoring Well ESS-31C, Near SDSP 433--Monitoring Well MW-2, 0.02 miles S 434--Monitoring Well MW-3, 0.03 miles S 435--Monitoring Well ESS-Nancy Creek-1, (NC-1) 436--Monitoring Well ESS-Nancy Creek-2, (NC-2) 437--Monitoring Well ESS-Nancy Creek-3, (NC-3) 438--Monitoring Well ESS-Nancy Creek-4, (NC-4) 439--Monitoring Well ESS-Nancy Creek-5, (NC-5) 440--Monitoring Well ESS-Gum Log Branch-1, (GLB-1) 447--Monitoring Well ESS-28C, Near SDSP	Grab Sample, Quarterly, Semiannual	N/A	Tritium (Quarterly) Gamma (Semiannual)

\* Control Stations

**Table 2 (Continued)**  
**Brunswick Steam Electric Plant**  
**Radiological Monitoring Sampling Locations**

Sample Type	Location & Description	Frequency	Sample Sz	Analysis
Thermoluminescent Dosimetry (TLD) (Direct Radiation)	1 1.1 miles E	Quarterly	Not Applicable	TLD Reading (Gamma Dose)
	2 0.9 miles ESE			
	3 0.9 miles SE			
	4 1.1 miles SSE			
	5 1.1 miles S			
	6 1.6 miles SSW			
	7 1.1 miles SW			
	8 1.2 miles W			
	9 1.0 miles WNW			
	10 0.8 miles NW			
	11 0.9 miles NNW			
	12 1.1 miles N			
	13 1.2 miles NNE			
	14 0.5 miles NE			
	15 0.9 miles ENE			
	16 1.0 miles WSW			
	17 1.4 miles ESE			
	18 1.7 miles SE			
	**			
	20 2.1 miles S			
	21 2.9 miles SSW			
	22 5.3 miles SW			
	23 4.6 miles WSW			
	24 3.0 miles W			
	25 8.6 miles WNW			
	26 5.9 miles NW			
	27 5.1 miles NNW			
	28 4.2 miles NW			
	29 2.6 miles SSW			
	30 2.0 miles NE			
	31 2.5 miles ENE			
	32 5.8 miles ENE			
	33 4.1 miles E			
	34 5.4 miles E			
	35 7.3 miles SSE			
	36 8.9 miles NE			
	37 5.5 miles NW			
	38 11.0 miles W			
	39 5.3 miles SW			
	40 6.9 miles WSW			
	**			
	75 4.7 miles S			
	76 4.8 miles SSW			
	77 5.4 miles S			
	78 9.9 miles NNE			
	79 9.5 miles N			
	**			
	81 9.9 miles WNW*			
	82 0.17 miles NNE @ SW corner of ISFSI			
	83 0.27 miles NE @ NW corner of ISFSI			
84 0.27 miles NE @ NE corner of ISFSI				
85 0.09 miles ENE @ SE corner of ISFSI				

\*Control Station

\*\*TLD sample points 19 and 80 have been retired, while points 41 thru 74 are not ODCM TLD sample points and are not listed.

## **SUMMARY OF RADIOLOGICAL MONITORING PROGRAM**

This report presents the results of the Radiological Environmental Monitoring Program conducted during 2010 for BSEP. The program was conducted in accordance with the ODCM, and applicable procedures.

The 2010 Annual Radiological Environmental Operating Report (REOR) has been prepared and submitted in accordance with Technical Specification 5.6.2 and ODCM 7.4.1. The report applies to both BSEP Unit Nos. 1 and 2 (License Nos. DPR-71 and DPR-62, respectively).

A total of 1802 sample measurements were performed on 1704 collected samples from indicator and control locations from eight environmental media types during the year. No detectable radioactivity (or radioactivity that differed significantly from the corresponding control) was observed in any of the 1584 measurements performed on the 1510 indicator location samples in 2010, except for Cs-137 in broadleaf vegetation and shoreline sediment samples, and tritium in ground water and surface water samples. No gamma activity was detected in any of the ground water or surface water samples, except for K-40 and other naturally occurring gamma activity. All samples analyzed met the Lower Limit of Detection (LLD) requirements as established by ODCM Table 7.3.15-3.

The radiological environmental data indicates that BSEP operations in 2010 had no significant impact on the environment or public health and safety. No measurable radiation exposure is attributed to any off-site member of the public due to the operations of BSEP.

A statistical summary of all the data gathered in 2010 has been compiled in Table 3.

Comparison of the current data with preoperational (1973, 1974) information (Tables 4 and 5) indicates that air particulate filter gross beta activity and ambient gamma radiation levels were lower for gross beta and about the same for gamma in 2010.

Comparison of current ISFSI TLD data after loaded fuel with preoperational data (2008 – 3<sup>rd</sup> Quarter 2010) indicates that the average TLD dose levels were about the same as 4<sup>th</sup> Quarter 2010.

**TABLE 3**  
**BRUNSWICK STEAM ELECTRIC PLANT**  
**RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Brunswick Steam Electric Plant  
 Brunswick County, North Carolina

Docket Numbers - 50-324 and 325  
 Calendar Year 2010

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations <sup>(2)</sup> Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range <sup>(2)</sup>
				Name, Distance, and Direction	Mean Range <sup>(2)</sup>	
Air Cartridge (pCi/m <sup>3</sup> )	I-131 364	5.0E-2	All less than LLD	----	----	All less than LLD
Air Particulate (pCi/m <sup>3</sup> )	Gross Beta <sup>(8)</sup> 364	5.0E-3	2.08E-2 (312/312) <sup>(7)</sup> 9.10E-3 – 4.22E-2	Brunswick County Government Complex 11.3 miles NW	2.20E-2 (52/52) <sup>(7)</sup> 1.06E-2 – 4.16E-2	2.06E-2 (52/52) <sup>(7)</sup> 1.02E-2 – 4.19E-2
	Gamma <sup>(4)(8)</sup> 28	See Table 6	All less than LLD	----	----	All less than LLD
Broadleaf Vegetation (pCi/g, wet)	Gamma <sup>(4)</sup> 60 <sup>(3)</sup> Cs-137	2.6E-2	All less than LLD	----	----	1.73E-2 (1/12) <sup>(7)</sup> Single value
	Tritium 3	6.0E+0 <sup>(8)</sup>	All less than LLD	----	----	No control
Fish and Invertebrates (pCi/g, wet)	Gamma <sup>(4)</sup> 15	See Table 6	All less than LLD	----	----	All less than LLD
	Gamma <sup>(4)</sup> 3 Cs-137	6.2E-2	1.57E-1 (1/3) <sup>(7)</sup> Single value	Nancy's Creek adjacent to WP-55 near SDSP	1.57E-1 (1/1) <sup>(7)</sup> Single value	No control <sup>(9)</sup>
Sediments--Shoreline (pCi/g, dry)	Hard-to-detects (Fe-55, Sr-89/90) 1	See Table 6	All less than LLD	----	----	No control

**TABLE 3 (cont.)  
BRUNSWICK STEAM ELECTRIC PLANT  
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Brunswick Steam Electric Plant  
Brunswick County, North Carolina

Docket Numbers - 50-324 and 325  
Calendar Year 2010

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) <sup>(1)</sup>	All Indicator Locations <sup>(2)</sup> Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range <sup>(2)</sup>
				Name, Distance, and Direction	Mean Range <sup>(2)</sup>	
Surface Water (pCi/l)	Tritium 332	2.50E+2 <sup>(6)</sup>	3.23E+2 (39/268) <sup>(7)</sup> 2.32E+2 - 5.06E+2	Nancy's Creek adjacent to WP- 106	3.39E+2 (14/48) <sup>(7)</sup> 2.39E+2 - 5.06E+2	All less than LLD
	Gamma <sup>(4)</sup> 95	See Table 6	All less than LLD	-----	-----	All less than LLD
Ground Water (pCi/l)	Tritium 255	2.50E+2 <sup>(6)</sup>	8.87E+4 (137/255) <sup>(7)</sup> 2.38E+2 - 8.26E+5	Well ESS-19C Near SDSP	5.66E+5 (13/13) <sup>(7)</sup> 4.52E+5 - 6.21E+5	No control
	Gamma <sup>(4)</sup> 101	See Table 6	All less than LLD	-----	-----	No control
TLD (mR per quarter) <sup>(5)</sup>	TLD Readout 179 <sup>(3)</sup>		1.01E+1 (175/176) <sup>(7)</sup> 7.70E+0 - 1.30E+1	2.9 miles SSW	1.24E+1 (4/4) <sup>(7)</sup> 1.18E+1 - 1.29E+1	1.07E+1 (4/4) <sup>(7)</sup> 9.20E+0 - 1.17E+1

### FOOTNOTES TO TABLE 3

1. LLD is calculated based on 4.66 standard deviations above background using typical sample sizes and counting times. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. See Table 6.
2. Mean and range are based on detectable measurements only. The fractions of detectable measurements at specific locations are indicated in parentheses.
3. Missing samples are discussed in Missed Surveillances.
4. Summary of gamma analysis results in this report does not include the following naturally occurring isotopes since most environmental samples contained some or all of these: Be-7, K-40, Tl-208, Pb-212, Bi-214, Pb-214, and Ra-226.
5. TLD dose is reported in milliroentgen (mR) per 90-day period (quarter) beginning in 1995. This is the exposure standard used to compare data to the NRC. This does not include the ISFSI data.
6. The tritium LLD was approximately  $2.50E+2$  pCi/L. The LLD was lowered at the request of Carolina Power & Light Company, now doing business as Progress Energy Carolinas, Inc. in order to maintain comparable LLD values with the North Carolina Division of Radiation Protection (NCDRP) laboratory.
7. The numbers in parentheses [e.g., Surface Water Tritium  $3.23E+2$  (39/268) for Indicator Location Mean (Average)] indicate how many samples that specific value and column apply to in relation to the total number of samples for that column heading.
8. The tritium reporting limit for Fish is approximately 6.0 pCi/gram as stated in the results from GEL.
9. A Shoreline Sediment background sample was collected, but is not an ODCM sample.

## INTERPRETATIONS AND CONCLUSIONS

### Air Monitoring

The average gross beta concentration measured in 312 air particulate (AP) samples collected at indicator stations during 2010 was  $2.08\text{E-}2$  picocuries per cubic meter ( $\text{pCi}/\text{m}^3$ ) and the average gross beta concentration measured in 52 AP samples collected at control stations during 2010 was  $2.06\text{E-}2$   $\text{pCi}/\text{m}^3$ . The preoperational (1973-1974) average concentration was  $8.2\text{E-}2$   $\text{pCi}/\text{m}^3$ , while the average activity in the recent past (2005-2009) was  $1.88\text{E-}2$   $\text{pCi}/\text{m}^3$  (Table 4). The airborne concentrations of gross beta activity in 2010 are indicative of natural background and do not indicate any abnormal activities originating from the nuclear operations at BSEP. Figures 11 through 16 depict the monthly variations of these values. The air samplers operated for a total of greater than 99% availability for the 2010 year.

Gamma analyses of the composite air particulate filters indicated that all of the radionuclides indicative of plant effluents were at concentrations less than their respective LLDs. All radionuclides positively identified by the radionuclide analyses were typical of naturally occurring materials.

Analyses of 312 indicator and 52 control air cartridges (AC) for the collection of radioiodines indicated that concentrations of those radionuclides, and particularly I-131, were less than the LLD. No I-131 activity was identified in any indicator or control samples in 2010.

### Milk

No milk (milch) sampling locations are currently identified in BSEP environs; therefore, no sampling of this media was available.

### Vegetation

Food crops were not grown in the vicinity of the plant in 2010, and this media was represented by indigenous vegetation samples consisting primarily of wax myrtle leaves. Forty-eight (48) samples were collected from indicator locations and twelve (12) samples from the control location. No detectable activities relating to plant effluents were detected in this sampling media in 2010. Cesium (Cs)-137 ( $1.73\text{E-}2$   $\text{pCi}/\text{gram}$  wet) activity was detected in one (wax myrtle broadleaf sample) out of twelve control samples. No other gamma activity was detected in any sample, except for K-40 (potassium-40) and other naturally occurring gamma activity.

### **Fish and Invertebrates**

Fish (free swimmers and bottom feeders), invertebrate (SH), and benthic organism (BO) samples are collected semiannually from two locations: (1) near the Atlantic Ocean discharge pipe at Caswell Beach and (2) a control location in the Atlantic Ocean not influenced by plant operations and annually from three locations on Nancy's Creek (Figure 5). In all fifteen (15) samples (indicator and control), no detectable activities relating to plant effluents were detected in 2010. All radionuclides positively identified by the radionuclide analyses were naturally occurring nuclides. The fish locations on Nancy's Creek sampled in 2010 were also analyzed for tritium, with all the tritium results being less than LLD.

### **Groundwater**

Groundwater is sampled semiannually and quarterly from 40 indicator sample sites. These samples are analyzed for gamma-emitting radionuclides (at least semiannually) and for tritium (at least quarterly). The analyses indicated that no detectable concentrations of gamma emitting radionuclides relating to plant effluents appeared in any of the indicator samples. Analyses indicated detectable concentrations of tritium in 137 out of 255 samples analyzed in 2010.

### **Shoreline Sediments**

Two shoreline sediments in 2010 were drawn from the beach area near the pumping station location at Caswell Beach. In both samples, all of the radionuclides indicative of plant effluents were determined to be less than the respective LLDs for gamma-emitting radionuclides. One shoreline sediment in 2010 was drawn from Nancy's Creek adjacent to WP-55 near the Storm Drain Stabilization Pond (SDSP), where the indicator sample contained Cesium (Cs)-137 activity ( $1.57\text{E-}1$  pCi/gm dry). The sample was analyzed for Iron (Fe)-55, Strontium (Sr)-89, and Strontium (Sr)-90 by GEL, all were less than the respective LLDs. A Shoreline Sediment background sample was collected in December 2010 and detected naturally occurring gamma activity.

### **Surface Water**

Surface water (SW) is sampled monthly from the intake and discharge canal and Nancy's Creek is sampled weekly. These samples are analyzed for gamma-emitting radionuclides and for tritium. Tritium analysis is performed weekly on the Nancy Creek samples. Sampling and compositing for gamma emitters is weekly and the gamma analysis is performed monthly on the samples composited weekly. The analyses indicated that no detectable concentrations of gamma emitting radionuclides relating to plant effluents appeared in any of the indicator and control samples. None of the control samples indicated the presence of tritium. However, thirty-nine (39) out of 268 indicator samples indicated the presence of tritium in 2010. The predominate location(s) indicating tritium were at Nancy's Creek and the discharge canal indicator locations. Five (5) of the twelve samples from the historical discharge canal indicated the presence of tritium, while thirty-four (34) out of 256 samples from Nancy's Creek indicated the presence of tritium. The tritium activity detected in SW-401 (the discharge canal composite sample) had an



average tritium concentration of  $3.36\text{E}+2$  pCi/L, which was expected due to plant operations at the time of sampling. The indicator samples from Nancy's Creek had a maximum concentration of  $5.06\text{E}+2$  pCi/L of tritium activity. The reporting limit for tritium in environmental samples is 30,000 pCi/L; therefore, the detected values are well below the reportable limit. Figure 17 depicts the observed tritium concentrations for SW-400 (control) and SW-401 (indicator) in 2010.

### **External Radiation Exposure**

The environmental data on external radiation exposure for 2010 was essentially unchanged from 1989-2009 with an average exposure for all of 2010 indicator locations of 10.1 mR per quarter. The average exposure observed over the preoperational period was 1.02 mR per week observed from the fourth quarter of 1972 through the second quarter of 1975. Table 5 provides a comparison of recent data with the preoperational and historical data.

The highest average exposure occurred at one TLD location at 2.9 miles SSW. The exposure was 12.4 mR per quarter. Figure 18 depicts average inner and outer ring TLD data for each quarter of 2010. This depiction does not indicate a significant higher exposure rate for the inner versus the outer ring. This is interpreted as demonstrating that no discernible off-site exposure has occurred from plant operations.

TLD averages per Table 3 do not include the four (4) ISFSI TLDs that were added to the program as of 3<sup>rd</sup> Quarter 2010, since these TLDs are not indicative of the plant's environmental monitoring program's TLDs. However, the individual data is included with the environmental data results. Comparison of the current ISFSI TLD data after loaded fuel with preoperational data (2008 – 3<sup>rd</sup> Quarter 2010) indicates that the average pre-op TLD dose levels ( $30.1 \pm 3.1$ ,  $22.4 \pm 2.1$ ,  $16.7 \pm 1.6$ , and  $53.2 \pm 7.6$ ) were about the same for 4<sup>th</sup> Quarter 2010 ( $29.7 \pm 3.1$ ,  $22.5 \pm 2.2$ ,  $16.8 \pm 1.8$ , and  $53.6 \pm 7.6$ ). Dry fuel storage radiation measurements have been monitored since 2008 and additional information can be found in the BSEP 2010 Annual Release Report.

**TABLE 4**  
**Brunswick Steam Electric Plant**  
**GROSS BETA AIR PARTICULATE ACTIVITY AVERAGES**

<u>Location</u>	<u>Gross Beta Activity (pCi/m<sup>3</sup>)</u>							
	<u>Preoperational</u>		<u>Recent Operational</u>					
	<u>1973</u>	<u>1974</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
AP-200	2.2E-2	1.4E-1	1.8E-2	1.9E-2	1.9E-2	1.9E-2	1.9E-2	2.0E-2
AP-201	3.1E-2	1.4E-1	1.9E-2	1.9E-2	2.0E-2	1.8E-2	1.9E-2	2.1E-2
AP-202	3.4E-2	1.4E-1	1.7E-2	1.8E-2	1.9E-2	1.9E-2	1.9E-2	2.1E-2
AP-203	2.4E-2	1.3E-1	1.8E-2	1.8E-2	2.0E-2	1.9E-2	1.9E-2	2.1E-2
AP-204*	2.5E-2	1.3E-1	1.9E-2	1.9E-2	2.1E-2	1.8E-2	1.8E-2	2.1E-2
AP-205	**	**	1.8E-2	1.8E-2	1.9E-2	1.9E-2	1.9E-2	2.0E-2
AP-206*	**	**	**	**	**	**	2.0E-2	2.2E-2

\* Control location

\*\* This sample point added post-operational.

**TABLE 5**  
**Brunswick Steam Electric Plant**  
**HISTORICAL TLD RESULTS (1972-2010)**

Year	Average Exposure of All TLD Monitoring Locations (mR per week)
1972 (4th Qtr.)	0.80
1973	1.25
1974	0.97
1975 (1st, 2nd Qtr)	0.80
1976	0.98
1977	1.32
1978	1.24
1979	0.93
1980	0.90
1981	0.96
1982	1.18
1983	1.21
1984	0.98
1985	1.03
1986	0.89
1987	0.92
1988	0.86
1989	0.75
1990	0.76
1991	0.76
1992	0.75
1993	0.78
1994	0.77
1995	10.1 (mR per quarter)*
1996	10.1 (mR per quarter)
1997	10.1 (mR per quarter)
1998	9.7 (mR per quarter)
1999	9.7 (mR per quarter)
2000	9.7 (mR per quarter)
2001	10.0 (mR per quarter)
2002	9.6 (mR per quarter)
2003	9.6 (mR per quarter)
2004	9.7 (mR per quarter)
2005	9.8 (mR per quarter)
2006	10.0 (mR per quarter)
2007	9.8 (mR per quarter)
2008	9.9 (mR per quarter)
2009	10.0 (mR per quarter)
2010	10.1 (mR per quarter)

\*TLD exposure in mR per quarter beginning in 1995. The equivalent weekly exposure is 0.78 mR.

## **MISSED SURVEILLANCES**

### **Air Cartridge and Air Particulates**

Any REMP weekly air samples (Air Cartridge – AC or Air Particulate – AP) that exceed 30 hours of down time in a surveillance period will be reported as a “missed surveillance.” However, this sample will still be counted and the data reported; whereas a “missed sample” will have no data reported. The air samplers operated for a total of greater than 99% availability for the 2010 year.

All AP and AC samples were available for counting in 2010.

Missed Surveillances: None

Missed Samples: None

### **Food Crops / Vegetation**

No food crops were grown in the vicinity of the plant in 2010; therefore, none were collected. The media were represented by indigenous vegetation samples (broadleaf vegetation) consisting of wax myrtle leaves.

### **Thermoluminescent Dosimeters (TLDs)**

One out of a possible 180 TLD samples was missing during 2010. The missing TLD occurred:

Third Quarter TLD # 23 was missing in the field due to the wooden power pole it was stationed on being replaced, which resulted in the loss of the TLD and the holder. An extensive search was conducted of the area (very over grown and flooded), but the TLD and holder were not located. A new TLD and holder were installed on the new power pole in the same location (NCR # 425765).

## **ANALYTICAL PROCEDURES**

### **Gross Beta**

Gross beta radioactivity measurements are made utilizing a Tennelec Low-Background Alpha/Beta Counting System. The LLD for air particulates is approximately  $5.0E-3$  pCi/m<sup>3</sup>.

AP samples are mounted in two-inch stainless steel planchets and are typically counted directly for 50 minutes.

### **Tritium**

Liquid samples requiring tritium analysis are treated with a small amount of sodium hydroxide, potassium permanganate crystals, and then distilled. The distillate is mixed with a liquid scintillation cocktail and counted for the appropriate time to reach the desired LLD. The desired LLD was approximately  $2.50E+2$  pCi/L. This lower LLD was established to compare BSEP tritium LLDs and North Carolina Department of Radiation Protection's reportable concentrations, in the Split Sample Program's Annual Report. The fish samples requiring tritium analysis are analyzed by a vendor laboratory. The ground water samples and most of the surface water samples requiring tritium analysis are analyzed by the BSEP laboratory.

### **Iodine-131**

Iodine-131 airborne concentrations are analyzed by the intrinsic germanium (Ge) gamma spectrometry systems. The cartridges are placed on the detector and each charcoal cartridge is typically counted individually for 2,500 seconds with an approximate LLD of  $5.0E-2$  pCi/m<sup>3</sup>.

### **Gamma Spectrometry**

Gamma spectrum analysis utilizes intrinsic germanium detectors with thin aluminum windows housed in steel and lead shields. The analyzer system is the Canberra APEX Gamma Spectroscopy System. Table 6 summarizes LLD values derived from using the instrument with the worst sensitivity, typical sample volumes, typical count times, typical worst background count, and worst case on decay (from collection to counting).

AP filter quarterly composites are placed in a Petri dish and analyzed directly for a typical count time of 1,500 seconds.

Liquid samples are transferred to Marinelli beakers and analyzed by gamma counting. One-liter SW samples are gamma scanned directly in a 1-Liter Marinelli beaker for 73,000 seconds, while the Caswell Beach Ocean Discharge samples are directly counted for 40,000 seconds.

Shoreline sediments are dried, ground, weighed, and then analyzed in a Marinelli beaker for a typical count time of 1,500 seconds.

Broadleaf vegetation is weighed wet and analyzed in a Marinelli beaker for a typical count time of 7,500 seconds.

Fish samples are prepared by stuffing small raw, edible portions of the fish in a one liter Marinelli beaker and edible portions of invertebrate organisms are cleaned and placed in a one liter Marinelli beaker for analysis for a typical count time of 1,500 seconds.

### **Thermoluminescent Dosimetry**

Each area monitoring station includes a TLD packet, which is a polyethylene bag containing three calcium sulfate phosphors contained in a Panasonic UD-814 badge. The TLD is light tight and the bag is weather-resistant.

Dosimeters are machine annealed before field placement. Following exposure in the field, each dosimeter is read utilizing a Panasonic TLD reader. This instrument integrates the light photons emitted from traps as the dosimeter is heated. Calibration is calculated using dosimeters irradiated to known doses for each set of dosimeters measured. Prior to the measurement of each dosimeter, the instrument is checked through use of an internal constant light source as a secondary standard. The exposure reported is corrected for exposure received in transit and during storage through the use of control dosimeters.

### **Interlaboratory Comparison Program**

The Radiochemistry Laboratory at the Harris Energy & Environmental Center in New Hill, North Carolina, provides radioanalytical services for Progress Energy Carolinas, Inc.'s nuclear plant radiological environmental surveillance programs. In fulfillment of ODCM Operational Requirements, the laboratory is a participant in the Eckert & Ziegler Analytics Environmental Cross-Check Program and uses its performance in this program as a major determinant of the accuracy and precision of its analytical results.

The Interlaboratory Comparison Program entails measurements on each instrument that is used to determine concentrations of radioactive material in the various media that are analyzed as part of the REMP. During 2010, 88 average analyses were completed on 21 samples representing seven major environmental media (i.e., water, milk, air filters, air filters composite, soil, air cartridges, and simulated vegetation). Data on the known activities, the uncertainties, and the ratios to the known for the 88 average analyses have been received from Eckert & Ziegler Analytics. The results were compared to the criteria established in the NRC Inspection Manual (Procedure 84750) for Radioactive Waste Treatment, Effluent, and Environmental monitoring (see below results).

All of the 88 average analyses were within the acceptance criteria. During 2010, the individual measurements were evaluated and results falling outside the acceptable ratio criteria had an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors (NCR # 400312 and 419981). Complete documentation of any evaluation will be available and provided to the NRC upon request.

Also, included at the end of the report in the Appendix is a partial summary of General Engineering Laboratories' (GEL's) Interlaboratory Comparison Program results for 2010. The summary provides an overall discussion on the 2010 results. The entire 2010 GEL Interlaboratory Comparison Program results will be provided upon request to provide individual analysis results which contain the Sample Number or Study ID; Analysis quarter and year; sample media; specific radionuclide; its unit; its result; the known values supplied by the providers; GEL's ratio to the known value or acceptance criteria provided by the provider; and evaluation criteria. BSEP's Interlaboratory Comparison Program results are also listed below. Other BSEP Interlaboratory Cross Check Program Results from 2010 will be supplied upon request.

**Environmental Cross Check Performance Summary for 4Q 2009 and 2010**

Sample	Nuclide	Quarter	Units	HEEC Value	EZA Value	HEEC/EZA Ratio	Evaluation
Gross beta water 4 <sup>th</sup> Qtr '09 E6944-668 1 <sup>st</sup> Qtr E7007-668 3 <sup>rd</sup> Qtr E7212-668 4 <sup>th</sup> Qtr E7368-668	Gross beta	4 <sup>th</sup> '09	pCi/L	284	258	1.10	Agreement
		1 <sup>st</sup>	pCi/L	271	260	1.04	Agreement
		3 <sup>rd</sup>	pCi/L	231	218	1.06	Agreement
		4 <sup>th</sup>	pCi/L	261	251	1.04	Agreement
Gross beta filter 4 <sup>th</sup> Qtr '09 E6943-668 2 <sup>nd</sup> Qtr E7146-668 4 <sup>th</sup> Qtr E7367-668	Gross beta	4 <sup>th</sup> '09	pCi	116.0	107.0	1.08	Agreement
		2 <sup>nd</sup>	pCi	83.0	80.4	1.03	Agreement
		4 <sup>th</sup>	pCi	73.0	71.2	1.03	Agreement
Tritium in water 4 <sup>th</sup> Qtr '09 E6942-668 1 <sup>st</sup> Qtr E7006-668 4 <sup>th</sup> Qtr E7366-668	H-3	4 <sup>th</sup> '09	pCi/L	13800	14000	0.99	Agreement
		1 <sup>st</sup>	pCi/L	11700	12000	0.97	Agreement
		4 <sup>th</sup>	pCi/L	9180	9960	0.92	Agreement
Iodine Cartridge 4 <sup>th</sup> Qtr '09 E6945-668 2 <sup>nd</sup> Qtr E7145-668 4 <sup>th</sup> Qtr E7369-668	I-131	4 <sup>th</sup> '09	pCi	93.5	93.8	1.00	Agreement
		2 <sup>nd</sup>	pCi	78.0	80.1	0.97	Agreement
		4 <sup>th</sup>	pCi	83.1	84.2	0.99	Agreement
Gamma Milk E7008-668	I-131	1 <sup>st</sup>	pCi/L	75.0	74.0	1.01	Agreement
	Ce-141	1 <sup>st</sup>	pCi/L	273	261	1.04	Agreement
	Cr-51	1 <sup>st</sup>	pCi/L	389	361	1.08	Agreement
	Cs-134	1 <sup>st</sup>	pCi/L	176	178	0.99	Agreement
	Cs-137	1 <sup>st</sup>	pCi/L	172	158	1.09	Agreement
	Co-58	1 <sup>st</sup>	pCi/L	148	143	1.04	Agreement
	Mn-54	1 <sup>st</sup>	pCi/L	229	207	1.10	Agreement
	Fe-59	1 <sup>st</sup>	pCi/L	157	137	1.15	Agreement
	Zn-65	1 <sup>st</sup>	pCi/L	285	254	1.12	Agreement
Co-60	1 <sup>st</sup>	pCi/L	194	183	1.06	Agreement	
Gamma Soil E7009-668	Ce-141	1 <sup>st</sup>	pCi/g	0.479	0.452	1.06	Agreement
	Cr-51	1 <sup>st</sup>	pCi/g	0.645	0.624	1.03	Agreement
	Cs-134	1 <sup>st</sup>	pCi/g	0.301	0.307	0.98	Agreement
	Cs-137	1 <sup>st</sup>	pCi/g	0.391	0.364	1.07	Agreement
	Co-58	1 <sup>st</sup>	pCi/g	0.254	0.247	1.03	Agreement
	Mn-54	1 <sup>st</sup>	pCi/g	0.378	0.358	1.06	Agreement
	Fe-59	1 <sup>st</sup>	pCi/g	0.262	0.237	1.11	Agreement
	Zn-65	1 <sup>st</sup>	pCi/g	0.477	0.439	1.09	Agreement
Co-60	1 <sup>st</sup>	pCi/g	0.326	0.317	1.03	Agreement	
Gamma Vegetation E7213-668	Ce-141	3 <sup>rd</sup>	pCi/g	0.468	0.479	0.98	Agreement
	Cr-51	3 <sup>rd</sup>	pCi/g	0.853	0.859	0.99	Agreement
	Cs-134	3 <sup>rd</sup>	pCi/g	0.310	0.342	0.91	Agreement
	Cs-137	3 <sup>rd</sup>	pCi/g	0.360	0.347	1.04	Agreement
	Co-58	3 <sup>rd</sup>	pCi/g	0.269	0.271	0.99	Agreement
	Mn-54	3 <sup>rd</sup>	pCi/g	0.454	0.439	1.03	Agreement
	Fe-59	3 <sup>rd</sup>	pCi/g	0.373	0.335	1.11	Agreement
	Zn-65	3 <sup>rd</sup>	pCi/g	0.793	0.749	1.06	Agreement
Co-60	3 <sup>rd</sup>	pCi/g	0.637	0.628	1.01	Agreement	



**Environmental Cross Check Performance Summary for 4Q 2009 and 2010**

<b>Sample</b>	<b>Nuclide</b>	<b>Quarter</b>	<b>Units</b>	<b>HEEC Value</b>	<b>EZA Value</b>	<b>HEEC/EZA Ratio</b>	<b>Evaluation</b>
Gamma Filter 2 <sup>nd</sup> Qtr E7143-668 3 <sup>rd</sup> Qtr E7214-668	Ce-141	2 <sup>nd</sup>	pCi	103	103	1.00	Agreement
		3 <sup>rd</sup>	pCi	124	121	1.02	Agreement
	Cr-51	2 <sup>nd</sup>	pCi	315	317	0.99	Agreement
		3 <sup>rd</sup>	pCi	221	217	1.02	Agreement
	Cs-134	2 <sup>nd</sup>	pCi	112	118	0.95	Agreement
		3 <sup>rd</sup>	pCi	94.0	86.5	1.09	Agreement
	Cs-137	2 <sup>nd</sup>	pCi	146	140	1.04	Agreement
		3 <sup>rd</sup>	pCi	94.0	87.9	1.07	Agreement
	Co-58	2 <sup>nd</sup>	pCi	96.0	94.6	1.01	Agreement
		3 <sup>rd</sup>	pCi	71.0	68.5	1.04	Agreement
	Mn-54	2 <sup>nd</sup>	pCi	172	158	1.09	Agreement
		3 <sup>rd</sup>	pCi	123	111	1.11	Agreement
	Fe-59	2 <sup>nd</sup>	pCi	129	111	1.16	Agreement
		3 <sup>rd</sup>	pCi	103	84.8	1.21	Agreement
	Zn-65	2 <sup>nd</sup>	pCi	227	192	1.18	Agreement
		3 <sup>rd</sup>	pCi	226	190	1.19	Agreement
Co-60	2 <sup>nd</sup>	pCi	187	184	1.02	Agreement	
	3 <sup>rd</sup>	pCi	166	159	1.05	Agreement	
Gamma 13 Filter Composite E7144-668	Ce-141	2 <sup>nd</sup>	pCi	85.0	83.5	1.02	Agreement
	Cr-51	2 <sup>nd</sup>	pCi	273	257	1.06	Agreement
	Cs-134	2 <sup>nd</sup>	pCi	98.0	95.2	1.03	Agreement
	Cs-137	2 <sup>nd</sup>	pCi	123	114	1.08	Agreement
	Co-58	2 <sup>nd</sup>	pCi	80.0	76.6	1.04	Agreement
	Mn-54	2 <sup>nd</sup>	pCi	143	128	1.12	Agreement
	Fe-59	2 <sup>nd</sup>	pCi	105	89.9	1.17	Agreement
	Zn-65	2 <sup>nd</sup>	pCi	185	156	1.19	Agreement
	Co-60	2 <sup>nd</sup>	pCi	157	149	1.06	Agreement

**Environmental Cross Check Performance Summary for 4Q 2009 and 2010**

<b>Sample</b>	<b>Nuclide</b>	<b>Quarter</b>	<b>Units</b>	<b>HEEC Value</b>	<b>EZA Value</b>	<b>HEEC/EZA Ratio</b>	<b>Evaluation</b>
Gamma Water 2 <sup>nd</sup> Qtr E7142-668 3 <sup>rd</sup> Qtr E7211-668	I-131	2 <sup>nd</sup>	pCi/L	80.0	78.9	1.01	Agreement
		3 <sup>rd</sup>	pCi/L	66.0	64.4	1.02	Agreement
	Ce-141	2 <sup>nd</sup>	pCi/L	169	161	1.05	Agreement
		3 <sup>rd</sup>	pCi/L	171	165	1.03	Agreement
	Cr-51	2 <sup>nd</sup>	pCi/L	540	494	1.09	Agreement
		3 <sup>rd</sup>	pCi/L	302	297	1.02	Agreement
	Cs-134	2 <sup>nd</sup>	pCi/L	180	183	0.98	Agreement
		3 <sup>rd</sup>	pCi/L	109	118	0.92	Agreement
	Cs-137	2 <sup>nd</sup>	pCi/L	242	218	1.11	Agreement
		3 <sup>rd</sup>	pCi/L	131	120	1.09	Agreement
	Co-58	2 <sup>nd</sup>	pCi/L	160	147	1.09	Agreement
		3 <sup>rd</sup>	pCi/L	95.0	93.5	1.02	Agreement
	Mn-54	2 <sup>nd</sup>	pCi/L	276	246	1.12	Agreement
		3 <sup>rd</sup>	pCi/L	163	152	1.07	Agreement
	Fe-59	2 <sup>nd</sup>	pCi/L	210	173	1.21	Agreement
		3 <sup>rd</sup>	pCi/L	127	116	1.10	Agreement
	Zn-65	2 <sup>nd</sup>	pCi/L	338	300	1.13	Agreement
		3 <sup>rd</sup>	pCi/L	279	259	1.08	Agreement
	Co-60	2 <sup>nd</sup>	pCi/L	309	286	1.08	Agreement
		3 <sup>rd</sup>	pCi/L	227	217	1.05	Agreement

**BSEP 2010 Interlaboratory Cross Check Performance Summary  
for Environmental Sample Media Types Analyzed**

Sample	Nuclide	Quarter	Units	BSEP Value	EZA Value	BSEP/EZA Ratio	Evaluation
Tritium in Water	H-3	1 <sup>st</sup>	μCi/cc	1.92E-3	1.99E-3	0.97	Agreement
		3 <sup>rd</sup>	μCi/cc	1.41E-3	1.55E-3	0.91	Agreement
Solid	Ce-141	3 <sup>rd</sup>	μCi	6.56E-2	6.18E-2	1.06	Agreement
		4 <sup>th</sup>	μCi	1.38E-1	1.26E-1	1.10	Agreement
	Cr-51	3 <sup>rd</sup>	μCi	1.53E-1	1.52E-1	1.01	Agreement
		4 <sup>th</sup>	μCi	1.08E-1	1.07E-1	1.01	Agreement
	Cs-134	3 <sup>rd</sup>	μCi	2.16E-2	2.21E-2	0.98	Agreement
		4 <sup>th</sup>	μCi	2.67E-2	2.73E-2	0.98	Agreement
		4 <sup>th</sup>	μCi	1.87E-2	1.93E-2	0.97	Agreement
	Cs-137	3 <sup>rd</sup>	μCi	2.36E-2	2.18E-2	1.08	Agreement
		4 <sup>th</sup>	μCi	3.40E-2	3.17E-2	1.07	Agreement
		4 <sup>th</sup>	μCi	2.27E-2	2.24E-2	1.02	Agreement
	Co-58	3 <sup>rd</sup>	μCi	2.57E-2	2.36E-2	1.09	Agreement
		4 <sup>th</sup>	μCi	2.01E-2	1.98E-2	1.01	Agreement
		4 <sup>th</sup>	μCi	1.38E-2	1.40E-2	0.98	Agreement
	Mn-54	3 <sup>rd</sup>	μCi	3.30E-2	2.96E-2	1.11	Agreement
		4 <sup>th</sup>	μCi	2.37E-2	2.16E-2	1.10	Agreement
		4 <sup>th</sup>	μCi	1.56E-2	1.53E-2	1.02	Agreement
	Fe-59	3 <sup>rd</sup>	μCi	4.07E-2	3.56E-2	1.14	Agreement
		4 <sup>th</sup>	μCi	3.61E-2	3.38E-2	1.07	Agreement
		4 <sup>th</sup>	μCi	2.52E-2	2.39E-2	1.05	Agreement
	Zn-65	3 <sup>rd</sup>	μCi	5.92E-2	5.16E-2	1.15	Agreement
		4 <sup>th</sup>	μCi	3.54E-2	3.18E-2	1.11	Agreement
		4 <sup>th</sup>	μCi	2.53E-2	2.25E-2	1.12	Agreement
	Co-60	3 <sup>rd</sup>	μCi	4.32E-2	3.97E-2	1.09	Agreement
4 <sup>th</sup>		μCi	5.42E-2	5.15E-2	1.05	Agreement	
4 <sup>th</sup>		μCi	3.59E-2	3.64E-2	0.99	Agreement	

Other BSEP Interlaboratory Cross Check Program Results from 2010 will be supplied upon request.

**Lower Limits of Detection**

All samples analyzed met the LLD required by the ODCM. Typical "a priori" LLD values for the samples analyzed are listed in Table 6.

**TABLE 6**  
**TYPICAL LOWER LIMITS OF DETECTION (A PRIORI)**  
**GAMMA SPECTROMETRY**

<b>Surface Water Samples (Saline Water)</b>	
<b>Isotope</b>	<b>LLD (pCi/l)</b>
Mn-54	6
Co-58	6
Fe-59	14
Co-60	6
Zn-65	13
Zr-Nb-95	11 / 7
I-131	14
Cs-134	8
Cs-137	6
Ba-La-140	29 / 9
<b>Air Particulates (Quarterly Composite)</b>	
<b>Isotope</b>	<b>LLD (pCi/m<sup>3</sup>)</b>
Cs-134	5.6E-3
Cs-137	4.5E-3
<b>Shoreline Sediment</b>	
<b>Isotope</b>	<b>LLD (pCi/kg, dry)</b>
Cs-134	62
Cs-137	43
Fe-55 (Hard-to-detect [HTD])	20,000
Sr-89/90 [HTD]	2000 / 2000
<b>Fish</b>	
<b>Isotope</b>	<b>LLD (pCi/kg, wet)</b>
Mn-54	71
Co-58	79
Fe-59	207
Co-60	76
Zn-65	148
Cs-134	82
Cs-137	69
<b>Food Products and Vegetation</b>	
<b>Isotope</b>	<b>LLD (pCi/kg, wet)</b>
I-131	47.3
Cs-134	25
Cs-137	26
<b>Air Cartridge</b>	
<b>Isotope</b>	<b>LLD (pCi/m<sup>3</sup>)</b>
I-131	4.91E-2

# LAND USE CENSUS

## PURPOSE OF THE LAND USE CENSUS

The land use census identifies the pathways (or routes) that radioactive material may reach the general populations near commercial nuclear generating stations. This is accomplished by completing studies each year that identify how the surrounding lands are used by the population. A comprehensive census of the use of the land within a five-mile distance of the plant is completed during the growing season each year. This information is used for dose assessment and to identify changes to the stations sampled and the type of samples. These results ensure that the Radiological Environmental Monitoring Program (REMP) is based upon current data regarding human activity in the vicinity of the plant. Therefore, the purpose of the land use census is both to ensure the monitoring program is current as well as to provide data for the calculation of estimated radiation exposure.

The pathways that are evaluated are:

- Ingestion Pathway - Results from eating food crops that may have radioactive materials deposited on them from the atmosphere or contain radioactive materials from the soil. Another pathway is through drinking milk from local cows or goats if these are present. The grass used to feed these animals may have incorporated or had deposited on it radioactive materials that can be transferred to the milk.
- Direct Radiation Exposure Pathway - Results from deposition of radioactive materials on the ground or from passage of these radioactive materials in the air.
- Inhalation Pathway - Results from breathing radioactive materials transported in the air.

## **Methodology**

The following must be identified within the five-mile radius of the plant for each of the 16 meteorological sectors (compass direction from which the winds may blow, for example NNE [North North East]):

- The nearest resident
- The nearest garden of greater than 500 square feet, producing broadleaf vegetation
- The nearest milk animal

The following must also be identified (for elevated releases) within the three-mile radius of the plant for each of the 16 meteorological sectors:

- The location of all milk animals
- The location of all gardens of greater than 500 square feet, producing broadleaf vegetation

The primary method is visual inspection from roadside within the five-mile radius, with the exception of the Sunny Point Military Ocean Terminal. This information may be supplemented with data from aerial photographs and a Global Positioning System (GPS) to determine distance and direction from the plant.

## **2010 Land Use Census Results**

The 2009 and 2010 results of the survey for the nearest resident, garden, milk and meat animals in each sector are compared in Table 7.

The resident portion of the census conducted in June of 2010 identified two (2) changes in the identity of the nearest resident in the WNW and NNW sectors from plant center from 2009. The garden portion of the census identified changes in the distances, locations, and existence of the nearest garden in five sectors during the 2010 census.

The nearest garden location changed in the North (N) sector from no garden to a garden at 0.9 miles, the address changed for the garden in the East Southeast (ESE) sector, the South (S) sector from 2.0 miles to 1.6 miles, the South Southwest (SSW) sector from 2.0 miles to 1.7 miles, and the West (W) sector from 0.9 miles to 1.0 mile. No milk animals were located within 5 miles of the plant in 2010.

The 2010 Garden Census was conducted within three (3) miles of BSEP and identifies all gardens of greater than 500 square feet that were found in the survey area. Results of the garden census are located in Table 8.

Results of the 2010 Land Use and Garden Census indicate stable use of land, confirming that current control locations are appropriate, and no changes are needed for dose assessment and environmental monitoring.

**TABLE 7**  
**Brunswick Steam Electric Plant**  
**LAND USE CENSUS COMPARISONS (2009- 2010)**  
**NEAREST PATHWAY (MILES)**

SECTOR	RESIDENT		GARDEN		MILK/MEAT ANIMALS	
	2010	2009	2010	2009	2010	2009
N	0.7	0.7	0.9*	None	None	None
NNE	0.8	0.8	0.9	0.9	None	None
NE	None	None	None	None	None	None
ENE	None	None	None	None	None	None
E	None	None	None	None	None	None
ESE	1.4	1.4	1.4*	1.4	None	None
SE	None	None	None	None	None	None
SSE	2.1	2.1	None	None	None	None
S	1.1	1.1	1.6*	2.0	None	None
SSW	1.2	1.2	1.7*	2.0	None	None
SW	1.1	1.1	1.6	1.6	None	None
WSW	1.2	1.2	1.2	1.2	None	None
W	0.9	0.9	1.0*	0.9	None	None
WNW	0.9*	0.9	None	None	None	None
NW	0.9	0.9	1.0	1.0	None	None
NNW	0.8*	0.8	0.9	0.9	None	None

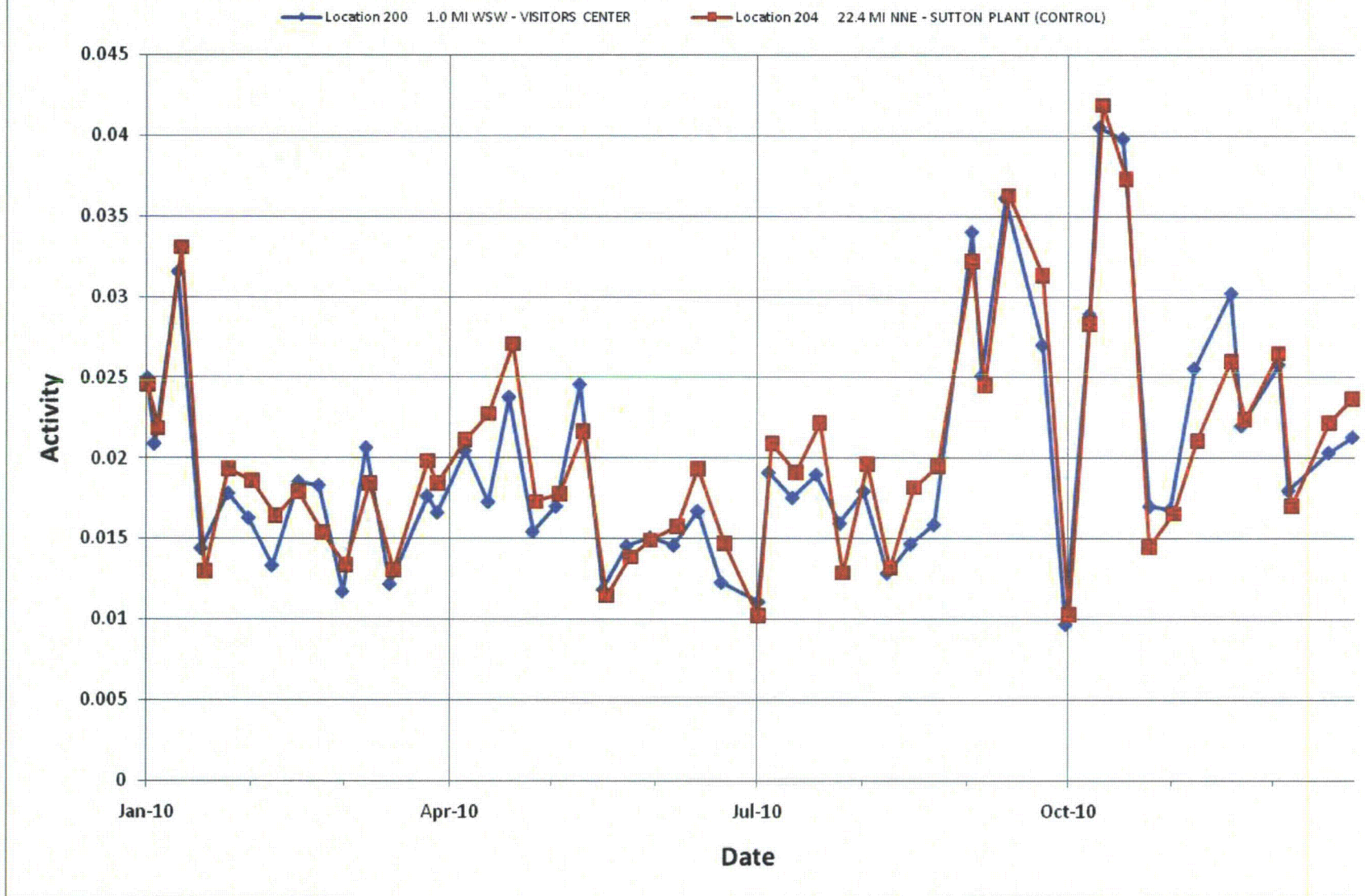
\* Represents a change from the previous year.

**TABLE 8**  
**Brunswick Steam Electric Plant**  
**GARDEN CENSUS (2010)**

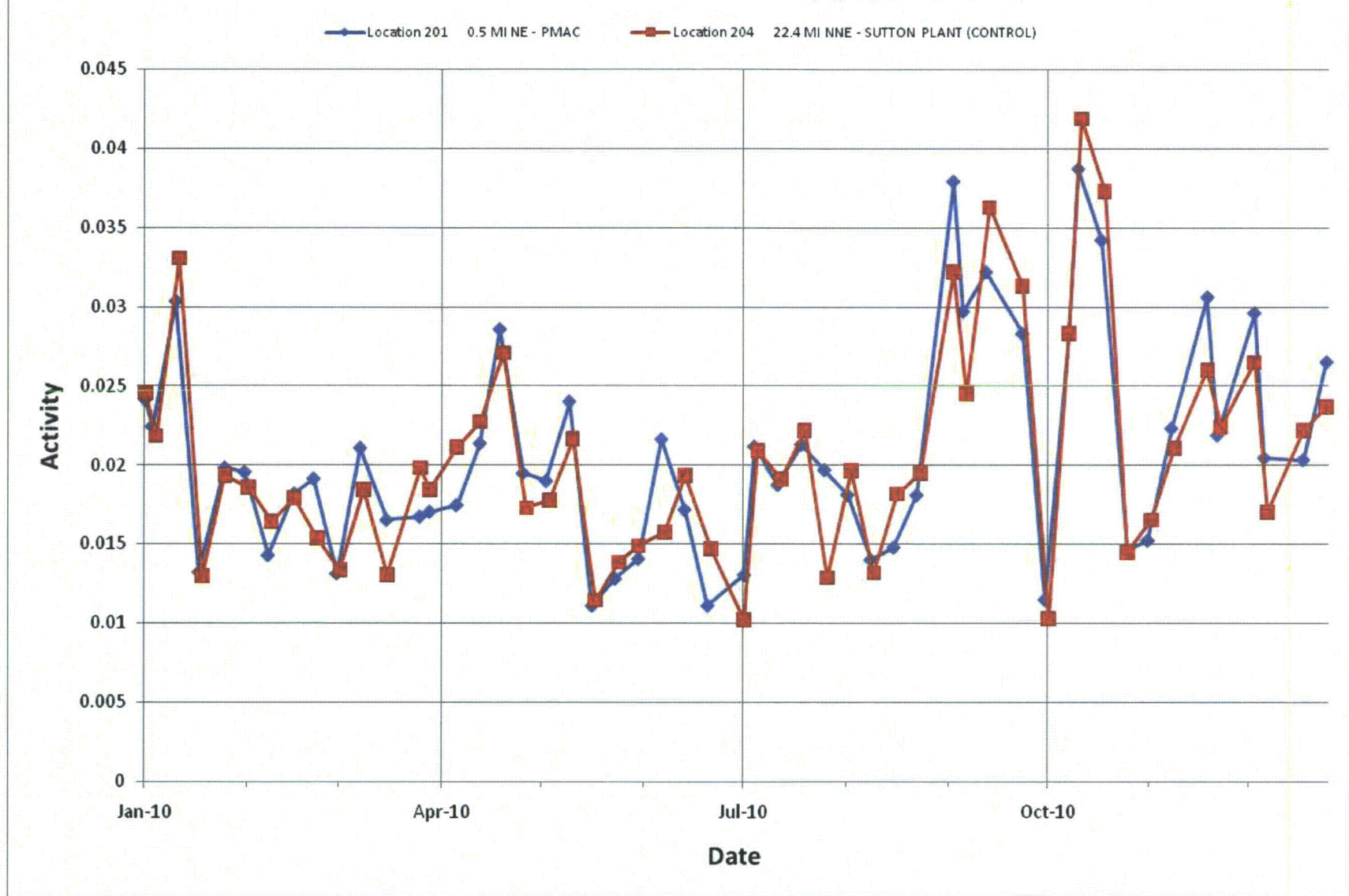
SECTOR	DISTANCE (miles)		SECTOR	DISTANCE (miles)
N	0.9		SW	1.9
NNE	0.9		SW	2.2
NNE	1.2		SW	2.9
NE	None		SW	3.0
ENE	None		WSW	1.2
E	None		WSW	1.6
ESE	1.4		WSW	2.1
SE	None		WSW	2.2
SSE	None		WSW	2.8
S	1.6		WSW	3.0
S	1.8		W	1.0
S	1.8		W	1.1
S	2.0		W	2.5
S	2.3		W	2.6
SSW	1.7		W	2.6
SSW	2.0		W	2.6
SSW	2.1		W	2.6
SSW	2.1		W	2.7
SSW	2.2		W	2.7
SSW	2.2		W	2.7
SSW	2.2		W	2.7
SSW	2.3		WNW	None
SSW	2.3		NW	1.0
SSW	2.3		NW	4.9
SSW	2.4		NNW	0.9
SSW	2.5		NNW	4.3
SSW	2.6		NNW	4.3
SSW	2.7		NNW	4.5
SSW	2.7		NNW	4.6
SSW	2.7		NNW	4.6
SSW	2.8		NNW	4.6
SSW	2.8		NNW	4.7
SW	1.6		NNW	4.8



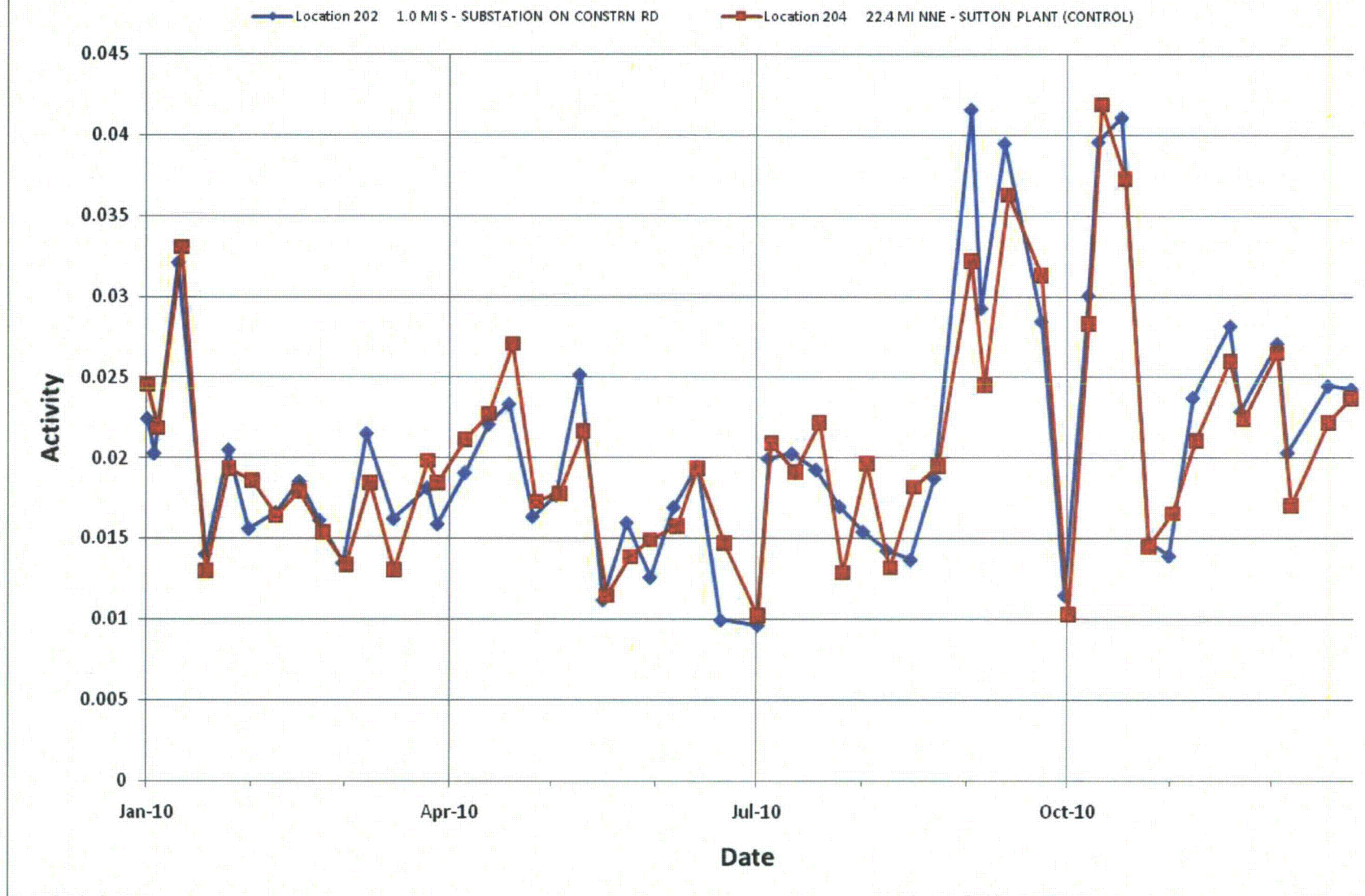
**Figure 11 For BNP from 1/1/2010 To 12/31/2010**  
**AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)**



**Figure 12 For BNP from 1/1/2010 To 12/31/2010**  
**AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)**

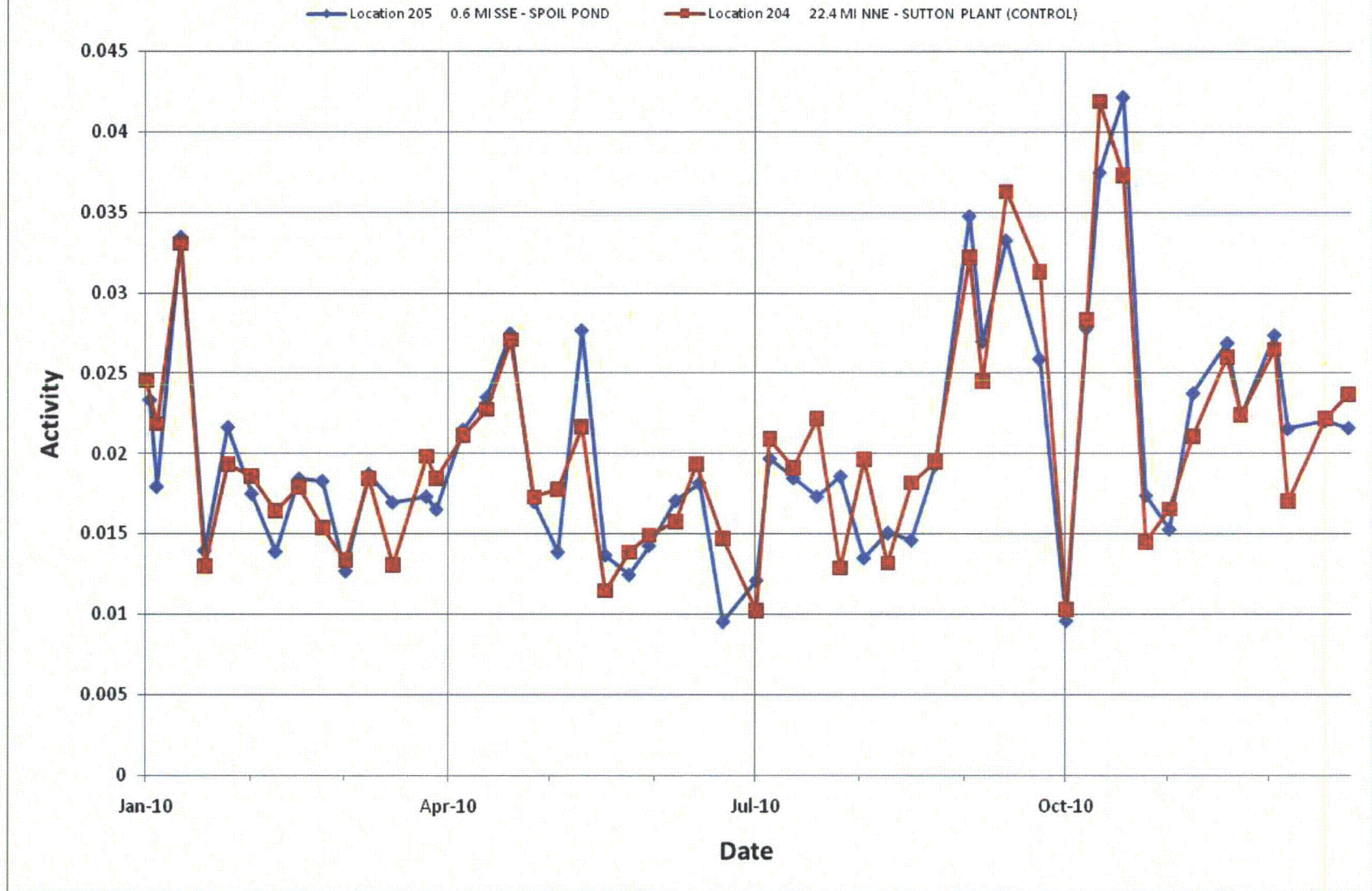


**Figure 13 For BNP from 1/1/2010 To 12/31/2010  
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)**

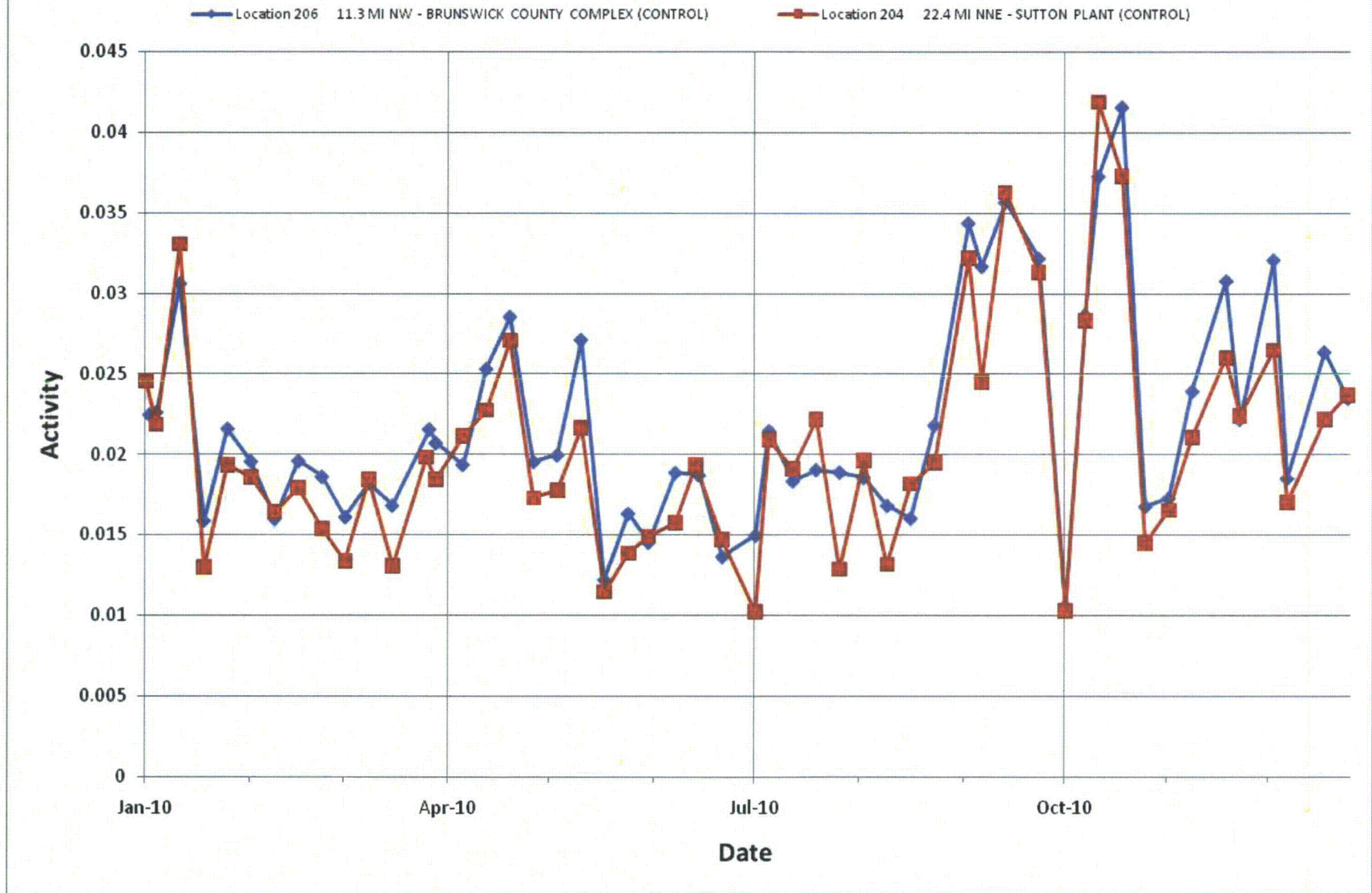




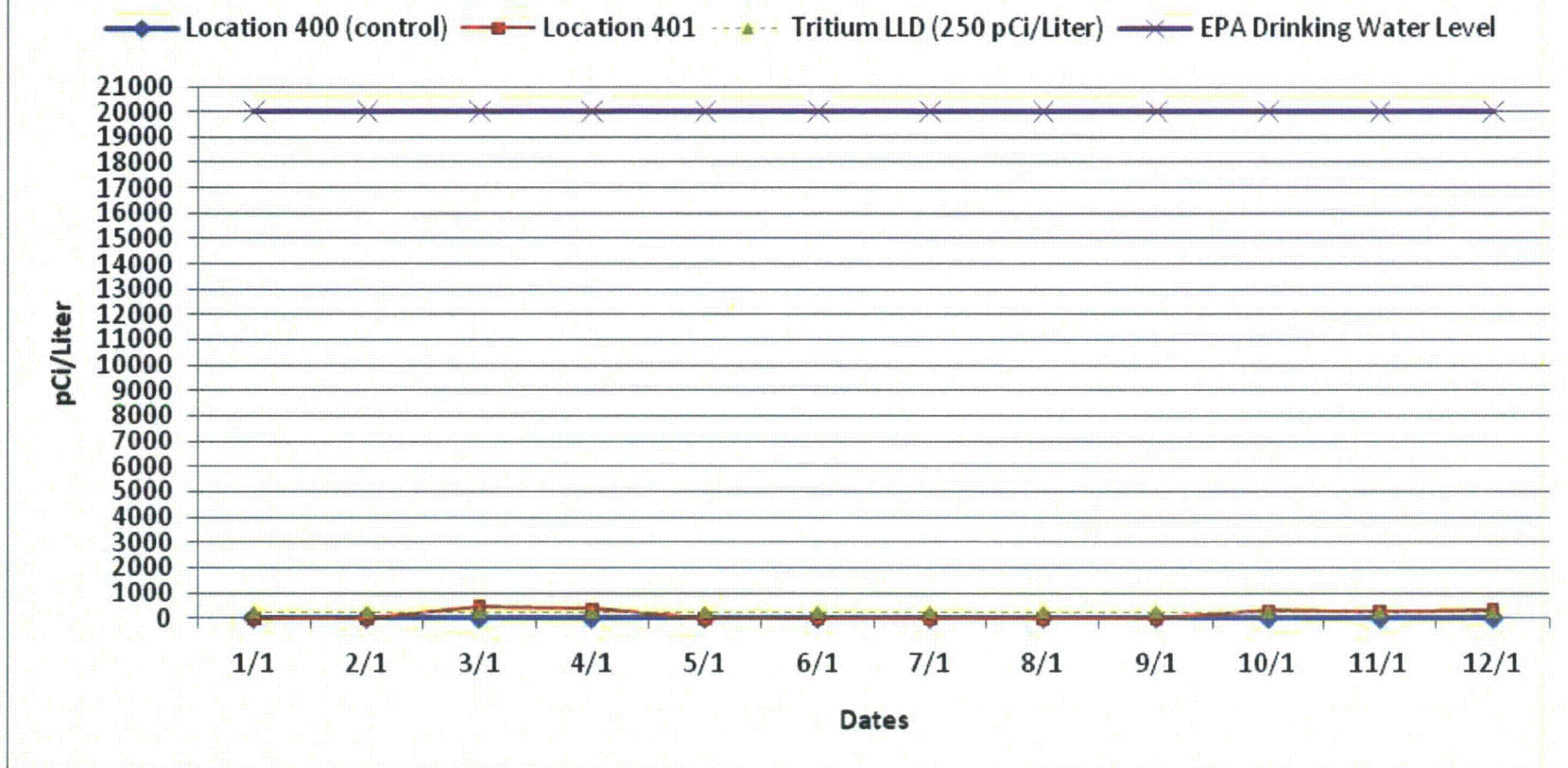
**Figure 15 For BNP from 1/1/2010 To 12/31/2010  
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)**



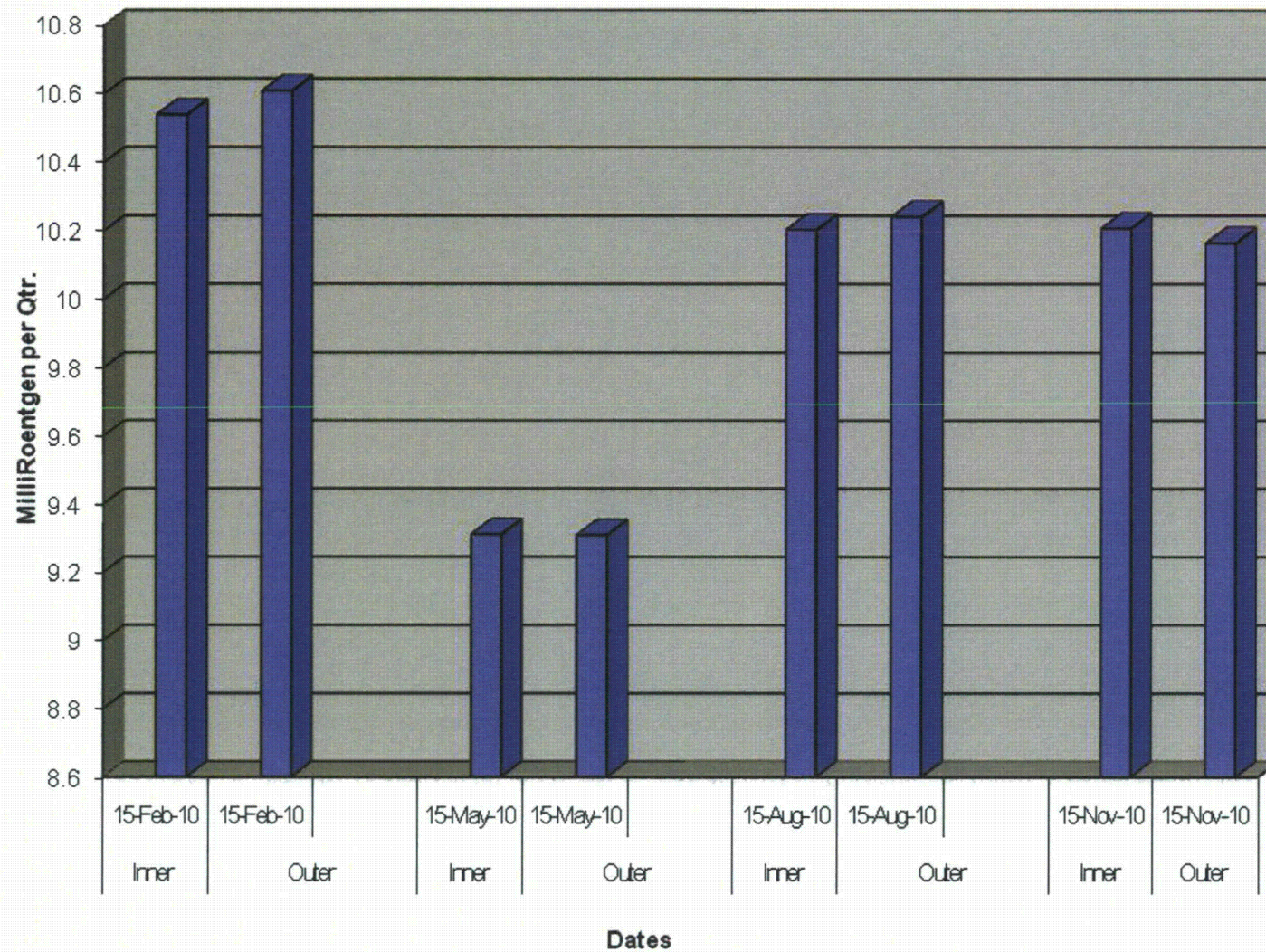
**Figure 16 For BNP from 1/1/2010 To 12/31/2010  
AIR PARTICULATE for GROSS BETA - Activity (pCi/cubic meter)**



### Figure 17 BSEP 2010 Surface Water Tritium



**Figure 18 BSEP 2010 TLD Averages for Inner and Outer Ring Locations**





## **APPENDIX**

The attached information contains excerpts from the 2010 Interlaboratory Comparison Program Report supplied by GEL Laboratories LLC. Any additional information pertaining to the report will be supplied upon request.



**2010 ANNUAL QUALITY ASSURANCE REPORT**  
**FOR THE**  
**RADIOLOGICAL ENVIRONMENTAL MONITORING**  
**PROGRAM**  
**(REMP)**

**JANUARY 2010 – DECEMBER 2010**

GEL LABORATORIES, LLC  
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**2010 ANNUAL QUALITY ASSURANCE REPORT  
FOR THE  
RADIOLOGICAL ENVIRONMENTAL MONITORING  
PROGRAM  
(REMP)**

**JANUARY 2010 – DECEMBER 2010**

Prepared By:   
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Quality Assurance Officer

February 15, 2011  
Date

Approved By:   
Robert L. Pullano  
Director, Quality Systems

February 15, 2011  
Date

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**8. IODINE-131 PERFORMANCE EVALUATION RESULTS AND % BIAS****2010 ANNUAL QUALITY ASSURANCE REPORT FOR THE  
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM (REMP)****1. Introduction**

GEL Laboratories, LLC (GEL) is a privately owned environmental laboratory dedicated to providing personalized client services of the highest quality. GEL was established as an analytical testing laboratory in 1981. Now a full service lab, our analytical divisions use state of the art equipment and methods to provide a comprehensive array of organic, inorganic, and radiochemical analyses to meet the needs of our clients.

At GEL, quality is emphasized at every level of personnel throughout the company. Management's ongoing commitment to good professional practice and to the quality of our testing services to our customers is demonstrated by their dedication of personnel and resources to develop, implement, assess, and improve our technical and management operations.

The purpose of GEL's quality assurance program is to establish policies, procedures, and processes to meet or exceed the expectations of our clients. To achieve this, all personnel that support these services to our clients are introduced to the program and policies during their initial orientation, and annually thereafter during company-wide training sessions.

GEL's primary goals are to ensure that all measurement data generated are scientifically and legally defensible, of known and acceptable quality per the data quality objectives (DQOs), and thoroughly documented to provide sound support for environmental decisions. In addition, GEL continues to ensure compliance with all contractual requirements, environmental standards, and regulations established by local, state and federal authorities.

GEL administers the QA program in accordance with the Quality Assurance Plan, GL-QS-B-001. Our Quality Systems include all quality assurance (QA) policies and quality control (QC) procedures necessary to plan, implement, and assess the work we perform. GEL's QA Program establishes a quality management system (QMS) that governs all of the activities of our organization.

This report entails the quality assurance program for the proficiency testing and environmental monitoring aspects of GEL for 2010. GEL's QA Program is designed to monitor the quality of analytical processing associated with environmental, radiobioassay, effluent (10 CFR Part 50), and waste (10 CFR Part 61) sample analysis.

This report covers the category of Radiological Environmental Monitoring Program (REMP) and includes:

- Intra-laboratory QC results analyzed during 2010.
- Inter-laboratory QC results analyzed during 2010 where known values were available.

## 2. Quality Assurance Programs for Inter-laboratory, Intra-laboratory and Third Party Cross-Check

In addition to internal and client audits, our laboratory participates in annual performance evaluation studies conducted by independent providers. We routinely participate in the following types of performance audits:

- Proficiency testing and other inter-laboratory comparisons.
- Performance requirements necessary to retain Certifications
- Evaluation of recoveries of certified reference and in-house secondary reference materials using statistical process control data.
- Evaluation of relative percent difference between measurements through SPC data.

We also participate in a number of proficiency testing programs for federal and state agencies and as required by contracts. It is our policy that no proficiency evaluation samples be analyzed in any special manner. Our annual performance evaluation participation generally includes a combination of studies that support the following:

- US Environmental Protection Agency Discharge Monitoring Report, Quality Assurance Program (DMR-QA). Annual national program sponsored by EPA for laboratories engaged in the analysis of samples associated with the NPDES monitoring program. Participation is mandatory for all holders of NPDES permits. The permit holder must analyze for all of the parameters listed on the discharge permit. Parameters include general chemistry, metals, BOD/COD, oil and grease, ammonia, nitrates, etc.
- Department of Energy Mixed Analyte Performance Evaluation Program (MAPEP). A semiannual program developed by DOE in support of DOE contractors performing waste analyses. Participation is required for all laboratories that perform environmental analytical measurements in support of environmental management activities. This program includes radioactive isotopes in water, soil, vegetation and air filters.
- ERA's MRAD-Multimedia Radiochemistry Proficiency test program. This program is for labs seeking certification for radionuclides in wastewater and solid waste. The program is conducted in strict compliance with USEPA National Standards for Water Proficiency study.
- ERA's InterLab RadChem Proficiency Testing Program for radiological analyses. This program completes the process of replacing the USEPA EMSL-LV Nuclear Radiation Assessment Division program discontinued in 1998. Laboratories seeking certification for radionuclide analysis in drinking water also use the study. This program is conducted in strict compliance with the USEPA National Standards for Water Proficiency Testing Studies. This program encompasses Uranium by EPA method 200.8 (for drinking water certification in Florida/Primary NELAP), gamma

emitters, Gross Alpha/Beta, Iodine-131, naturally occurring radioactive isotopes, Strontium-89/90, and Tritium.

- ERA's Water Pollution (WP) biannual program for waste methodologies includes parameters for both organic and inorganic analytes.
- ERA's Water Supply (WS) biannual program for drinking water methodologies includes parameters for organic and inorganic analytes.
- New York State Department of Health Environmental Laboratory Approval Program Proficiency Testing Program for Potable Water (PW)
- Environmental Cross-Check Program administered by Eckert & Ziegler Analytics, Inc. This program encompasses radionuclides in water, soil, milk, naturally occurring radioactive isotopes in soil and air filters.

GEL procures single-blind performance evaluation samples from Eckert & Ziegler Analytics to verify the analysis of sample matrices processed at GEL. Samples are received on a quarterly basis. GEL's Third-Party Cross-Check Program provides environmental matrices encountered in a typical nuclear utility REM. The Third-Party Cross-Check Program is intended to meet or exceed the inter-laboratory comparison program requirements discussed in NRC Regulatory Guide 4.15, revision 1. Once performance evaluation samples have been prepared in accordance with the instructions provided by the PT provider, samples are managed and analyzed in the same manner as environmental samples from GEL's clients.

### 3. Quality Assurance Program for Internal and External Audits

During each annual reporting period, at least one internal assessment is conducted in accordance with the pre-established schedule from Standard Operating Procedure for the Conduct of Quality Audits, GL-QS-E001. The annual internal audit plan is reviewed for adequacy and includes the scheduled frequency and scope of quality control actions necessary to GEL's QA program. Internal audits are conducted at least annually in accordance with a schedule approved by the Quality Systems Director. Supplier audits are contingent upon the categorization of the supplier, and may or may not be conducted prior to the use of a supplier or subcontractor. Type I suppliers and subcontractors, regardless of how they were initially qualified, are re-evaluated at least once every three years.

In addition, prospective customers audit GEL during pre-contract audits. GEL hosts several external audits each year for both our clients and other programs. These programs include environmental monitoring, waste characterization, and radiobioassay. The following list of programs may audit GEL at least annually or up to every three years depending on the program.

- NELAC, National Environmental Laboratory Accreditation Program
- DOECAP, U.S. Department of Energy Consolidated Audit Program
- DOELAP, U.S. Department of Energy Laboratory Accreditation Program
- DOE QSAS, U.S. Department of Energy, Quality Systems for Analytical Services
- ISO/IEC 17025



- A2LA, American Association for Laboratory Accreditation
- DOD ELAP, US Department of Defense Environmental Accreditation Program
- NUPIC, Nuclear Procurement Issues Committee
- South Carolina Department of Health and Environmental Control (SC DHEC)

The annual radiochemistry laboratory internal audit (10-RAD-001) was conducted in March 2010. Four findings, one observation, and two recommendations resulted from this assessment. Each finding was closed and appropriate laboratory staff addressed each observation and recommendation. The internal audit closed in June 2010.

#### 4. Performance Evaluation Acceptance Criteria for Environmental Sample Analysis

GEL utilized an acceptance protocol based upon two performance models. For those inter-laboratory programs that already have established performance criteria for bias (i.e., MAPEP, and ERAVELAP), GEL will utilize the criteria for the specific program. For intra-laboratory or third party quality control programs that do not have a specific acceptance criteria (i.e. the Eckert-Ziegler Analytcs Environmental Cross-check Program), results will be evaluated in accordance with GEL's internal acceptance criteria.

#### 5. Performance Evaluation Samples

Performance Evaluation (PE) results and internal quality control sample results are evaluated in accordance with GEL acceptance criteria. The first criterion concerns bias, which is defined as the deviation of any one result from the known value. The second criterion concerns precision, which deals with the ability of the measurement to be replicated by comparison of an individual result with the mean of all results for a given sample set.

At GEL, we also evaluate our analytical performance on a regular basis through statistical process control acceptance criteria. Where feasible, this criterion is applied to both measures of precision and accuracy and is specific to sample matrix. We establish environmental process control limits at least annually.

For Radiochemistry analysis, quality control evaluation is based on static limits rather than those that are statistically derived. Our current process control limits are maintained in GEL's AlphaLIMS. We also measure precision with matrix duplicates and/or matrix spike duplicates. The upper and lower control limits (UCL and LCL respectively) for precision are plus or minus three times the standard deviation from the mean of a series of relative percent differences. The static precision criteria for radiochemical analyses are 0 - 20%, for activity levels exceeding the contract required detection limit (CRDL).

#### 6. Quality Control Program for Environmental Sample Analysis

GEL's internal QA Program is designed to include QC functions such as instrumentation calibration checks (to insure proper instrument response), blank samples, instrumentation backgrounds, duplicates, as well as overall staff qualification analyses and statistical process controls. Both quality control and qualification analyses samples are used to be as similar as the matrix type of those samples submitted for analysis by the various laboratory clients. These performance test samples (or performance evaluation samples) are either

actual sample submitted in duplicate in order to evaluate the precision of laboratory measurements, or fortified blank samples, which have been given a known quantity of a radioisotope that is in the interest to GEL's clients.

Accuracy (or Bias) is measured through laboratory control samples and/or matrix spikes, as well as surrogates and internal standards. The UCLs and LCLs for accuracy are plus or minus three times the standard deviation from the mean of a series of recoveries. The static limit for radiochemical analyses is 75 - 125%. Specific instructions for out-of-control situations are provided in the applicable analytical SOP.

GEL's Laboratory Control Standard (LCS) is an aliquot of reagent water or other blank matrix to which known quantities of the method analytes are added in the laboratory. The LCS is analyzed exactly like a sample, and its purpose is to determine whether the methodology is in control, and whether the laboratory is capable of making accurate and precise measurements. Some methods may refer to these samples as Laboratory Fortified Blanks (LFB). The requirement for recovery is between 75 and 125% for radiological analyses excluding drinking water matrix.

$$\text{Bias (\%)} = \frac{(\text{observed concentration})}{(\text{known concentration})} * 100 \%$$

Precision is a data quality indicator of the agreement between measurements of the same property, obtained under similar conditions, and how well they conform to themselves. Precision is usually expressed as standard deviation, variance or range in either absolute or relative (percentage) terms.

GEL's laboratory duplicate (DUP or LCSD) is an aliquot of a sample taken from the same container and processed in the same manner under identical laboratory conditions. The aliquot is analyzed independently from the parent sample and the results are compared to measure precision and accuracy.

If a sample duplicate is analyzed, it will be reported as Relative Percent Difference (RPD). The RPD must be 20 percent or less, if both samples are greater than 5 times the MDC. If both results are less than 5 times MDC, then the RPD must be equal to or less than 100%. If one result is above the MDC and the other is below the MDC, then the RPD can be calculated using the MDC for the result of the one below the MDC. The RPD must be 100% or less. In the situation where both results are above the MDC but one result is greater than 5 times the MDC and the other is less than 5 times the MDC, the RPD must be less than or equal to 20%. If both results are below MDC, then the limits on % RPD are not applicable.

$$\text{Difference (\%)} = \frac{(\text{high duplicate result} - \text{low duplicate result})}{(\text{average of results})} * 100 \%$$

## 7. Summary of Data Results

During 2010, forty-three radioisotopes associated with six matrix types were analyzed under GEL's Performance Evaluation program in participation with ERA, MAPEP, NYSDOH ELAP and Eckert & Ziegler Analytics. Matrix types were representative of client analyses performed during 2010. The list below contains the type of matrix evaluated by GEL.

- Air Filter
- Cartridge
- Water
- Milk
- Soil
- Vegetation

Graphs are provided in Figures 1-8 of this report to allow for the evaluation of trends or biases. These graphs include radioisotopes Cobalt-60, Cesium-137, Tritium, Strontium-90, Gross Alpha, Gross Beta, and Iodine-131. A summary of GEL's quality control for radiological analyses by isotopic analysis and matrix are represented in Table 8. Each LCS and DUP represents a batch of samples for each isotopic analysis. This summary contains the number of reportable quality control results for our clients.

#### 8. Summary of Participation in the Eckert & Ziegler Analytics Environmental Cross-Check Program

During 2010, Eckert & Ziegler Analytics provided samples for 106 individual environmental analyses. Of the 106 analyses, 99% (105 out of 106) of all results fell within the PT provider's acceptance criteria. The only analytical failure occurred with the analysis of Iron-59 in milk. For the corrective action associated with the Iron-59 failure, refer to CARR110209-542 (Table 9).

#### 9. Summary of Participation in the MAPEP Monitoring Program

During 2010, one set of MAPEP samples (MAPEP 22) was analyzed by the laboratory. Of the 66 analyses, 80% (53 out of 66) of all results fell within the PT provider's acceptance criteria. Thirteen analytical failures occurred: Plutonium-238 in water, Uranium-235 in filter, Uranium-238 in filter, Uranium-Total in filter, Americium-241 in filter, Cesium-134 in filter, Cesium-137 in filter, Cobalt-60 in filter, Manganese-54 in filter, Plutonium-239/240 in filter, Uranium-244/243 in filter, Uranium-238 in filter, and Uranium-238 in vegetation.

For the corrective action associated MAPEP 22, refer to CARR100617-496 (Table 9). The ICP-MS analysis of Uranium-235 and Uranium-238 failure was attributed to the use of the less vigorous digestion method (EPA Method 3050B). After contacting RESL, GEL discovered that they had used a more rigorous total dissolution process. The failure for Plutonium-238 was attributed to a data reviewer's error and lack of attention to detail to the region of interest that was not included in the data result. Approximately 400 additional counts should have been included. For the remaining isotopic failures, the error was attributed to analyst error and failure to follow the instructions from the PT provider.

#### 10. Summary of Participation in the ERA MRad PT Program

During 2010, the ERA MRad program provided samples (MRAD-12 and MRAD-13) for 175 individual environmental analyses. Of the 175 analyses, 98% (169 out of 176) of all results fell within the PT provider's acceptance criteria. Six analytical failures occurred: Uranium-234 in soil, Uranium-238 in soil, Uranium-238 in vegetation, Plutonium-238 in water, Uranium-238 in water, and Bismuth-212 in soil.

For the corrective actions associated with MRAD-12 and MRAD-13, refer to corrective actions CARR100617-497 and CARR101210-527, respectively (Table 9). For MRAD-12, the ICP-MS analysis of Uranium-235 and Uranium-238 failure was attributed to the use of the less vigorous digestion method (EPA Method 3050B). After contacting RESL, GEL discovered that they had used a more rigorous total dissolution process. For Uranium-238 in vegetation, air and water, the failure was attributed to method sensitivity by gamma spectroscopy. Future PT analysis will be performed using a more sensitive method.

For MRAD-13, the failure for Bismuth-212 was attributed to a reporting error. The actual result (1660 pCi/kg) was within the acceptance range. The failure of Iron-55 was attributed to matrix interference. An additional recount with a smaller aliquot and fresh reagent rinses removed the interferant.

#### 11. Summary of Participation in the ERA PT Program

During 2010, the ERA program provided samples (RAD-80 and RAD-82) for 53 individual environmental analyses. Of the 53 analyses, 77% (41 out of 53) of all results fell within the PT provider's acceptance criteria. Twelve analytical failures occurred: Strontium-89 in water, Strontium-90 in water, Barium-133 in water, Cesium-134 in water, Cesium-137 in water, Cobalt-60 in water, Zinc-65 in water, Uranium (Natural) in water, Uranium (Nat) Mass in water, Strontium-90 in water, Cesium-134 in water, and Zinc-65 in water.

For the corrective actions associated with RAD-80 and RAD-82, refer to corrective actions CARR100318-487 and CARR100907-512, respectively (Table 9). For RAD-80, the Gross Alpha failure was attributed to a concentrated iron carrier. The Strontium-89 and Strontium-90 failures were attributed to the associated weights of the carriers utilized during the preparation and analysis.

For RAD-82, failures of the Gamma Emitters and the Naturals (Uranium) were attributed to analyst error and failure to follow the instructions from the PT provider. The failure of Strontium-89 and Strontium-90 was attributed to analyst error while diluting the sample.

#### 12. Summary of Participation in the New York ELAP PT Program

During 2010, the NYSDOH ELAP PT program provided 30 individual tests for radiological analysis. Of the 30 analyses, 83% (25 out of 30) of the results were within the PT provider's acceptance criteria. Five analytical failures occurred: Cesium-134 in water, Iodine-131 in water (two), Strontium-89 in water, and Radium-226 in water.

For the corrective actions associated with NY-337, refer to corrective action CARR101203-525 (Table 9). For Cesium-134, Iodine-131, Strontium-89 and Strontium-90, and Radium-226, the failures could not be determined. The laboratory continues to monitor results of internal quality control samples.

In addition, GEL (Lab ID# E87156, Lab Code# SC00012) maintained primary NELAP accreditation from the Florida Department of Health for the following methods in potable water and non-potable water. The radiological analytes and methods are listed below.

- Gross Alpha: EPA 900.0, EPA 1984 00-02

- Gross Beta: EPA 900.0
- Iodine-131: DOE 4.5.2.3, EPA 901.1, EPA 902.0
- Photon Emitters: DOE 4.5.2.3, EPA 901.1
- Radioactive Cesium: DOE 4.5.2.3, EPA 901.1
- Tritium: EPA 906.0
- Radium-226: EPA 903.1, EPA 1984 Ra-04
- Radium-228: EPA 904.0, EPA 1976 PP.24
- Radon: SM 20 7500 Rn, DOE 1990 Sr-02
- Strontium-90: EPA 905.0
- Strontium-90: EPA 905.0
- Uranium (Activity): DOE 1990 U-02, ASTM D5174-97, 02

### 13. Quality Control Program for REMP Analyses

GEL's internal (intra-laboratory) quality control program evaluated 1590 individual analyses for bias and 1591 analyses for precision for standard REMP matrix and radionuclides. Of the 959 internal quality control analyses evaluated for bias, 100% met laboratory acceptance criteria. In addition, 100% of the 1591 results for precision were found to be acceptable. The results are summarized in Table 8.

GEL performs low-level analysis specifically for Tritium in water. A chart of low activity H-3 spike performance is provided in Figure 8. All 2010 analyses were within the acceptance criteria.

### 14. Corrective Action Request and Report (CARR)

There are two categories of corrective action at GEL. One is corrective action implemented at the analytical and data review level in accordance with the analytical SOP. The other is formal corrective action documented by the Quality Systems Team in accordance with GL-QS-E-002. A formal corrective action is initiated when a nonconformance reoccurs or is so significant that permanent elimination or prevention of the problem is required.

GEL includes quality requirements in most analytical standard operating procedures to ensure that data are reported only if the quality control criteria are met or the quality control measures that did not meet the acceptance criteria are documented. A formal corrective action is implemented according to GL-QS-E-002 for Conducting Corrective/Preventive Action and Identifying Opportunities for Improvement. Recording and documentation is performed following guidelines stated in GL-QS-E-012 for Client NCR Database Operation.

Any employee at GEL can identify and report a nonconformance and request that corrective action be taken. Any GEL employee can participate on a corrective action team as requested by the QS team or Group Leaders. The steps for conducting corrective action are detailed in GL-QS-E-002. In the event that correctness or validity of the laboratory's test results in doubt, the laboratory will take corrective action. If investigations show that the results have been impacted, affected clients will be informed of the issue in writing within five (5) calendar days of the discovery.

Table 9 provides the status of CARRs for radiological performance testing during 2010.

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**15. References**

1. GEL Quality Assurance Plan, GL-QS-B-001
2. GEL Standard Operating Procedure for the Conduct of Quality Audits, GL-QS-E-001
3. GEL Standard Operating Procedure for Conducting Corrective/Preventive Action and Identifying Opportunities for Improvement, GL-QS-E-002
4. GEL Standard Operating Procedure for AlphaLIMS Documentation of Nonconformance Reporting and Dispositioning and Control of Nonconforming Items, GL-QS-E-004
5. GEL Standard Operating Procedure for Handling Proficiency Evaluation Samples, GL-QS-E-013
6. GEL Standard Operating Procedure for Quality Assurance Measurement Calculations and Processes, GL-QS-E-014
7. 40 CFR Part 136 Guidelines Establishing Test Procedures for the Analysis of Pollutants
8. ISO/IEC 17025-2005, General Requirements for the Competence of Testing and Calibration Laboratories
9. ANSI/ASQC E4-1994, Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, American National Standard
10. 2003 NELAC Standard, National Environmental Laboratory Accreditation Program
11. MARLAP, Multi-Agency Radiological Laboratory Analytical Protocols
12. 10 CFR Part 21, Reporting of Defects and Noncompliance
13. 10 CFR Part 50 Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
14. 10 CFR Part 61, Licensing Requirements for Land Disposal and Radioactive Waste
15. NRC REG Guide 4.15 and NRC REG Guide 4.8

# **2010 BSEP Radiological Environmental Monitoring TLD Report**

## **Comments**

- TLD points 41 thru 74 are not ODCM TLD sample points and are not listed.
- TLD sample points 19 and 80 have been retired and are not used.
- TLD sample points 82 thru 85 for Independent Spent Fuel Storage Installation (ISFSI) are listed, but not included in the TLD statistical calculations.
- All BSEP Environmental TLDs were present in 2010, except for the following TLD:
  - TLD # 23 Third Quarter of 2010

## *BNP Radiological Environmental Monitoring TLD Report*

*Dose: mR/std. qtr.*

<i>TLD</i>	<i>TLD Location Description</i>	<i>Sample Date</i>	<i>Dose</i>	<i>2 Sigma Error</i>
1	1.1 MI E	2/15/2010	10.6	1.4
1	1.1 MI E	5/15/2010	9.3	1.6
1	1.1 MI E	8/15/2010	10.3	1.6
1	1.1 MI E	11/15/2010	10.2	2
2	0.9 MI ESE	2/15/2010	9.7	1
2	0.9 MI ESE	5/15/2010	9.3	1.1
2	0.9 MI ESE	8/15/2010	9.3	1
2	0.9 MI ESE	11/15/2010	10.5	2.8
3	0.9 MI SE	2/15/2010	9	1.2
3	0.9 MI SE	5/15/2010	10	1.4
3	0.9 MI SE	8/15/2010	9.5	2.1
3	0.9 MI SE	11/15/2010	10.4	3.8
4	1.1 MI SSE	2/15/2010	10.9	1.1
4	1.1 MI SSE	5/15/2010	9.4	0.8
4	1.1 MI SSE	8/15/2010	10.2	1.7
4	1.1 MI SSE	11/15/2010	10.8	2.5
5	1.1 MI S	2/15/2010	10.4	1.8
5	1.1 MI S	5/15/2010	8.9	1
5	1.1 MI S	8/15/2010	9.7	2.1
5	1.1 MI S	11/15/2010	9.7	2.1
6	1.1 MI SSW	2/15/2010	10	1.3
6	1.1 MI SSW	5/15/2010	8.7	1



*Dose: mR/std. qtr.*

<b><i>TLD</i></b>	<b><i>TLD Location Description</i></b>	<b><i>Sample Date</i></b>	<b><i>Dose</i></b>	<b><i>2 Sigma Error</i></b>
6	1.1 MI SSW	8/15/2010	9.6	1.3
6	1.1 MI SSW	11/15/2010	9.7	2.7
7	1.1 MI SW	2/15/2010	10.8	1.1
7	1.1 MI SW	5/15/2010	9.2	1
7	1.1 MI SW	8/15/2010	10.4	1.4
7	1.1 MI SW	11/15/2010	10.2	2
8	1.2 MI W	2/15/2010	10.4	1.3
8	1.2 MI W	5/15/2010	8.9	1
8	1.2 MI W	8/15/2010	9.6	1.7
8	1.2 MI W	11/15/2010	9.8	2.4
9	1.0 MI WNW	2/15/2010	9.1	1.9
9	1.0 MI WNW	5/15/2010	9.1	1.2
9	1.0 MI WNW	8/15/2010	8.9	1.1
9	1.0 MI WNW	11/15/2010	9.3	2.3
10	0.8 MI NW	2/15/2010	9.6	2.1
10	0.8 MI NW	5/15/2010	8.4	0.9
10	0.8 MI NW	8/15/2010	9.2	1.9
10	0.8 MI NW	11/15/2010	9.2	1.9
11	0.9 MI NNW	2/15/2010	9.7	1.5
11	0.9 MI NNW	5/15/2010	9.5	1.2
11	0.9 MI NNW	8/15/2010	9.5	1.9
11	0.9 MI NNW	11/15/2010	10.4	2
12	1.1 MI N	2/15/2010	10.4	2.2
12	1.1 MI N	5/15/2010	8.6	1.4

*Dose: mR/std. qtr.*

<i>TLD</i>	<i>TLD Location Description</i>	<i>Sample Date</i>	<i>Dose</i>	<i>2 Sigma Error</i>
12	1.1 MI N	8/15/2010	10.3	1
12	1.1 MI N	11/15/2010	9.4	2
13	1.2 MI NNE	2/15/2010	9.3	1.3
13	1.2 MI NNE	5/15/2010	8.3	1.8
13	1.2 MI NNE	8/15/2010	9	1.4
13	1.2 MI NNE	11/15/2010	9.2	2.6
14	0.5 MI NE	2/15/2010	10.6	1.6
14	0.5 MI NE	5/15/2010	9.9	0.9
14	0.5 MI NE	8/15/2010	10.5	1.6
14	0.5 MI NE	11/15/2010	11.2	2
15	0.9 MI ENE	2/15/2010	10.6	1.2
15	0.9 MI ENE	5/15/2010	9.9	1.6
15	0.9 MI ENE	8/15/2010	11.2	2.3
15	0.9 MI ENE	11/15/2010	10.3	2.1
16	1.0 MI WSW	2/15/2010	10	2.8
16	1.0 MI WSW	5/15/2010	8.8	0.8
16	1.0 MI WSW	8/15/2010	8.7	1
16	1.0 MI WSW	11/15/2010	9.5	2
17	1.4 MI ESE	2/15/2010	11.8	2.9
17	1.4 MI ESE	5/15/2010	9.6	1
17	1.4 MI ESE	8/15/2010	11.8	3.3
17	1.4 MI ESE	11/15/2010	10.9	3.8
18	1.7 MI SE	2/15/2010	12.3	1.1
18	1.7 MI SE	5/15/2010	9.5	1.6

*Dose: mR/std. qtr.*

<b>TLD</b>	<b>TLD Location Description</b>	<b>Sample Date</b>	<b>Dose</b>	<b>2 Sigma Error</b>
18	1.7 MI SE	8/15/2010	12	1.7
18	1.7 MI SE	11/15/2010	10.5	2.5
20	2.1 MI S	2/15/2010	11.7	2.5
20	2.1 MI S	5/15/2010	8.7	1
20	2.1 MI S	8/15/2010	11.4	2.4
20	2.1 MI S	11/15/2010	10.3	2.2
21	2.9 MI SSW	2/15/2010	12.9	1.6
21	2.9 MI SSW	5/15/2010	11.8	1.8
21	2.9 MI SSW	8/15/2010	12.2	1.9
21	2.9 MI SSW	11/15/2010	12.5	2.1
22	5.3 MI SW	2/15/2010	9.7	1.5
22	5.3 MI SW	5/15/2010	9.1	1
22	5.3 MI SW	8/15/2010	9.2	1
22	5.3 MI SW	11/15/2010	10	2
23	4.6 MI WSW	2/15/2010	10.6	1.1
23	4.6 MI WSW	5/15/2010	7.7	1
23	4.6 MI WSW	11/15/2010	8.7	1.5
24	3.0 MI W	2/15/2010	10.2	1.3
24	3.0 MI W	5/15/2010	9.7	0.9
24	3.0 MI W	8/15/2010	10.1	1.2
24	3.0 MI W	11/15/2010	10.6	1.9
25	8.6 MI WNW	2/15/2010	10.2	1.3
25	8.6 MI WNW	5/15/2010	9.3	0.9
25	8.6 MI WNW	8/15/2010	8.9	1.5

*Dose: mR/std. qtr.*

<b><i>TLD</i></b>	<b><i>TLD Location Description</i></b>	<b><i>Sample Date</i></b>	<b><i>Dose</i></b>	<b><i>2 Sigma Error</i></b>
25	8.6 MI WNW	11/15/2010	9.7	2.5
26	5.9 MI NW	2/15/2010	13	1.4
26	5.9 MI NW	5/15/2010	10.6	1.3
26	5.9 MI NW	8/15/2010	12.2	1.7
26	5.9 MI NW	11/15/2010	12.1	2
27	5.1 MI NNW	2/15/2010	10.1	1.3
27	5.1 MI NNW	5/15/2010	8.6	1
27	5.1 MI NNW	8/15/2010	9.5	1.3
27	5.1 MI NNW	11/15/2010	9	2
28	4.2 MI NW	2/15/2010	11.6	2.1
28	4.2 MI NW	5/15/2010	8.9	1.6
28	4.2 MI NW	8/15/2010	10.4	2.2
28	4.2 MI NW	11/15/2010	10.1	2
29	2.6 MI SSW	2/15/2010	9.8	1.9
29	2.6 MI SSW	5/15/2010	8.3	1.3
29	2.6 MI SSW	8/15/2010	8.9	1.1
29	2.6 MI SSW	11/15/2010	9.2	2
30	2.0 MI NE	2/15/2010	12	2
30	2.0 MI NE	5/15/2010	10	1.7
30	2.0 MI NE	8/15/2010	12.5	1.2
30	2.0 MI NE	11/15/2010	10.5	2.1
31	2.5 MI ENE	2/15/2010	10.1	1.2
31	2.5 MI ENE	5/15/2010	10.1	1
31	2.5 MI ENE	8/15/2010	9.9	1.6

*Dose: mR/std. qtr.*

<i>TLD</i>	<i>TLD Location Description</i>	<i>Sample Date</i>	<i>Dose</i>	<i>2 Sigma Error</i>
31	2.5 MI ENE	11/15/2010	10.8	2.9
32	5.8 MI ENE	2/15/2010	12.7	1.2
32	5.8 MI ENE	5/15/2010	10.7	1.1
32	5.8 MI ENE	8/15/2010	11.7	1.4
32	5.8 MI ENE	11/15/2010	11.5	2.3
33	4.1 MI E	2/15/2010	9.2	1.1
33	4.1 MI E	5/15/2010	8.1	1.3
33	4.1 MI E	8/15/2010	8.9	1.7
33	4.1 MI E	11/15/2010	9.9	3.9
34	5.4 MI E	2/15/2010	9.7	1.2
34	5.4 MI E	5/15/2010	8.8	0.9
34	5.4 MI E	8/15/2010	9.1	1.1
34	5.4 MI E	11/15/2010	9.6	1.9
35	7.3 MI SSE	2/15/2010	7.9	1.5
35	7.3 MI SSE	5/15/2010	8.3	1.1
35	7.3 MI SSE	8/15/2010	7.9	1.1
35	7.3 MI SSE	11/15/2010	8.7	2.1
36	8.9 MI NE	2/15/2010	10.8	1.8
36	8.9 MI NE	5/15/2010	8.9	1.2
36	8.9 MI NE	8/15/2010	9.7	1.6
36	8.9 MI NE	11/15/2010	10.1	2.4
37	5.5 MI NW	2/15/2010	8.9	1.4
37	5.5 MI NW	5/15/2010	7.7	1
37	5.5 MI NW	8/15/2010	9	1.3

*Dose: mR/std. qtr.*

<b><i>TLD</i></b>	<b><i>TLD Location Description</i></b>	<b><i>Sample Date</i></b>	<b><i>Dose</i></b>	<b><i>2 Sigma Error</i></b>
37	5.5 MI NW	11/15/2010	8.7	2.2
38	11.0 MI W	2/15/2010	10.6	2.1
38	11.0 MI W	5/15/2010	9.1	0.9
38	11.0 MI W	8/15/2010	9.8	1
38	11.0 MI W	11/15/2010	9.8	2
39	5.3 MI SW	2/15/2010	12.1	1.7
39	5.3 MI SW	5/15/2010	12.3	1.5
39	5.3 MI SW	8/15/2010	11	2.6
39	5.3 MI SW	11/15/2010	12.8	2.9
40	6.9 MI WSW	2/15/2010	12.1	1.2
40	6.9 MI WSW	5/15/2010	11.6	1.1
40	6.9 MI WSW	8/15/2010	11.8	1.3
40	6.9 MI WSW	11/15/2010	12.2	2
75	4.7 MI S	2/15/2010	9.9	2
75	4.7 MI S	5/15/2010	9.9	1.1
75	4.7 MI S	8/15/2010	10.8	1.4
75	4.7 MI S	11/15/2010	10.7	2.2
76	4.8 MI SSW	2/15/2010	12.5	1.4
76	4.8 MI SSW	5/15/2010	10.1	0.8
76	4.8 MI SSW	8/15/2010	12.8	1.1
76	4.8 MI SSW	11/15/2010	11.2	2.3
77	5.4 MI S	2/15/2010	9.8	1.1
77	5.4 MI S	5/15/2010	7.8	0.9
77	5.4 MI S	8/15/2010	9.8	2.3

*Dose: mR/std. qtr.*

<b>TLD</b>	<b>TLD Location Description</b>	<b>Sample Date</b>	<b>Dose</b>	<b>2 Sigma Error</b>
77	5.4 MI S	11/15/2010	8.1	1.9
78	9.9 MI NNE	2/15/2010	9	1.3
78	9.9 MI NNE	5/15/2010	8.9	0.8
78	9.9 MI NNE	8/15/2010	9.1	2
78	9.9 MI NNE	11/15/2010	10	2
79	9.5 MI N	2/15/2010	11.9	1.6
79	9.5 MI N	5/15/2010	9.5	1.3
79	9.5 MI N	8/15/2010	11.7	1.7
79	9.5 MI N	11/15/2010	10.1	2.5
81	9.9 MI WNW - CONTROL	2/15/2010	11.5	1.4
81	9.9 MI WNW - CONTROL	5/15/2010	9.2	1.7
81	9.9 MI WNW - CONTROL	8/15/2010	11.7	1.6
81	9.9 MI WNW - CONTROL	11/15/2010	10.4	2
82	0.17 MI NNE - @ SW CORNER OF ISFSI	8/15/2010	28.1	1.2
82	0.17 MI NNE - @ SW CORNER OF ISFSI	11/15/2010	24.8	2.9
83	0.27 MI NE - @ NW CORNER OF ISFSI	8/15/2010	21.2	1.3
83	0.27 MI NE - @ NW CORNER OF ISFSI	11/15/2010	23.8	3.4
84	0.27 MI NE - @ NE CORNER OF ISFSI	8/15/2010	17.5	2.6
84	0.27 MI NE - @ NE CORNER OF ISFSI	11/15/2010	17.1	4.3
85	0.09 MI ENE - @ SE CORNER OF ISFSI	8/15/2010	57.6	3.7
85	0.09 MI ENE - @ SE CORNER OF ISFSI	11/15/2010	58	6.9

# 2010 BSEP

## Radiological Environmental Monitoring Analysis Report

### Comments

- All AC and AP samples were available during 2010.
- Efficiency values are not included for AC samples requiring radioiodine analysis (I-131), because gamma software does not report these values.
- The Less than LLD (<LLD) represents that no activity was present, but lists the LLD values.
- There are no 2 sigma error values reported when activity is <LLD.
- Tritium samples that exhibit activity will not indicate LLD values for the following samples:
  - Groundwater samples (402 – 440 and 447)
  - Surface Water samples (494 – 499)



# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Analysis: Beta*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>	
200	1.0 MI WSW - VISITORS CENTER	1/4/2010	260.8	2.50E-02	3.66E-03	3.30E-03
200	1.0 MI WSW - VISITORS CENTER	1/11/2010	285.9	2.09E-02	3.22E-03	2.96E-03
200	1.0 MI WSW - VISITORS CENTER	1/18/2010	272.4	3.15E-02	3.84E-03	3.05E-03
200	1.0 MI WSW - VISITORS CENTER	1/25/2010	283.9	1.44E-02	2.92E-03	3.11E-03
200	1.0 MI WSW - VISITORS CENTER	2/1/2010	278.9	1.78E-02	3.20E-03	3.30E-03
200	1.0 MI WSW - VISITORS CENTER	2/8/2010	290.1	1.63E-02	3.01E-03	3.12E-03
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	268.1	1.33E-02	3.11E-03	3.61E-03
200	1.0 MI WSW - VISITORS CENTER	2/22/2010	268.1	1.85E-02	3.25E-03	3.21E-03
200	1.0 MI WSW - VISITORS CENTER	3/1/2010	280.7	1.83E-02	3.17E-03	3.15E-03
200	1.0 MI WSW - VISITORS CENTER	3/8/2010	273.6	1.17E-02	2.94E-03	3.46E-03
200	1.0 MI WSW - VISITORS CENTER	3/15/2010	283.3	2.07E-02	3.27E-03	3.09E-03
200	1.0 MI WSW - VISITORS CENTER	3/22/2010	283.4	1.22E-02	2.84E-03	3.25E-03
200	1.0 MI WSW - VISITORS CENTER	3/29/2010	281.7	1.76E-02	3.10E-03	3.08E-03
200	1.0 MI WSW - VISITORS CENTER	4/5/2010	284.4	1.66E-02	3.04E-03	3.08E-03
200	1.0 MI WSW - VISITORS CENTER	4/12/2010	284.7	2.05E-02	3.28E-03	3.18E-03
200	1.0 MI WSW - VISITORS CENTER	4/19/2010	283.4	1.73E-02	3.14E-03	3.25E-03
200	1.0 MI WSW - VISITORS CENTER	4/26/2010	286.3	2.38E-02	3.31E-03	2.76E-03
200	1.0 MI WSW - VISITORS CENTER	5/3/2010	284.1	1.54E-02	2.90E-03	2.90E-03
200	1.0 MI WSW - VISITORS CENTER	5/10/2010	285.1	1.70E-02	3.08E-03	3.15E-03
200	1.0 MI WSW - VISITORS CENTER	5/17/2010	285	2.46E-02	3.44E-03	3.02E-03
200	1.0 MI WSW - VISITORS CENTER	5/24/2010	287.5	1.18E-02	2.75E-03	3.10E-03
200	1.0 MI WSW - VISITORS CENTER	5/31/2010	286.3	1.45E-02	2.89E-03	3.03E-03
200	1.0 MI WSW - VISITORS CENTER	6/7/2010	285.8	1.51E-02	2.97E-03	3.14E-03
200	1.0 MI WSW - VISITORS CENTER	6/14/2010	290.6	1.46E-02	2.79E-03	2.80E-03
200	1.0 MI WSW - VISITORS CENTER	6/21/2010	285.7	1.67E-02	3.03E-03	3.07E-03
200	1.0 MI WSW - VISITORS CENTER	6/28/2010	287.2	1.23E-02	2.79E-03	3.13E-03
200	1.0 MI WSW - VISITORS CENTER	7/5/2010	289.4	1.11E-02	2.69E-03	3.08E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Beta*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>	
200	1.0 MI WSW - VISITORS CENTER	7/12/2010	285.8	1.91E-02	3.19E-03	3.14E-03
200	1.0 MI WSW - VISITORS CENTER	7/19/2010	287.6	1.75E-02	3.03E-03	2.94E-03
200	1.0 MI WSW - VISITORS CENTER	7/26/2010	291.5	1.90E-02	3.12E-03	3.03E-03
200	1.0 MI WSW - VISITORS CENTER	8/2/2010	284.1	1.59E-02	2.92E-03	2.87E-03
200	1.0 MI WSW - VISITORS CENTER	8/9/2010	286.5	1.79E-02	3.08E-03	3.01E-03
200	1.0 MI WSW - VISITORS CENTER	8/16/2010	287.3	1.29E-02	2.87E-03	3.22E-03
200	1.0 MI WSW - VISITORS CENTER	8/23/2010	287	1.47E-02	2.89E-03	2.99E-03
200	1.0 MI WSW - VISITORS CENTER	8/30/2010	287	1.59E-02	3.00E-03	3.10E-03
200	1.0 MI WSW - VISITORS CENTER	9/6/2010	291.1	3.40E-02	3.83E-03	2.92E-03
200	1.0 MI WSW - VISITORS CENTER	9/13/2010	283.8	2.51E-02	3.42E-03	2.86E-03
200	1.0 MI WSW - VISITORS CENTER	9/20/2010	283.8	3.61E-02	4.01E-03	3.11E-03
200	1.0 MI WSW - VISITORS CENTER	9/27/2010	286.8	2.70E-02	3.51E-03	2.89E-03
200	1.0 MI WSW - VISITORS CENTER	10/4/2010	279.5	9.69E-03	2.76E-03	3.39E-03
200	1.0 MI WSW - VISITORS CENTER	10/11/2010	284.1	2.89E-02	3.65E-03	3.00E-03
200	1.0 MI WSW - VISITORS CENTER	10/18/2010	277.5	4.05E-02	4.21E-03	3.01E-03
200	1.0 MI WSW - VISITORS CENTER	10/25/2010	281.4	3.98E-02	4.11E-03	2.85E-03
200	1.0 MI WSW - VISITORS CENTER	11/1/2010	281	1.70E-02	3.13E-03	3.24E-03
200	1.0 MI WSW - VISITORS CENTER	11/8/2010	278	1.68E-02	3.18E-03	3.35E-03
200	1.0 MI WSW - VISITORS CENTER	11/15/2010	276.4	2.56E-02	3.63E-03	3.32E-03
200	1.0 MI WSW - VISITORS CENTER	11/22/2010	277.4	3.02E-02	3.77E-03	3.10E-03
200	1.0 MI WSW - VISITORS CENTER	11/29/2010	276.9	2.20E-02	3.49E-03	3.44E-03
200	1.0 MI WSW - VISITORS CENTER	12/6/2010	274.5	2.58E-02	3.49E-03	2.80E-03
200	1.0 MI WSW - VISITORS CENTER	12/13/2010	269.6	1.80E-02	3.27E-03	3.35E-03
200	1.0 MI WSW - VISITORS CENTER	12/20/2010	267.5	2.03E-02	3.45E-03	3.46E-03
200	1.0 MI WSW - VISITORS CENTER	12/27/2010	268.7	2.13E-02	3.37E-03	3.11E-03
201	0.5 MI NE - PMAC	1/4/2010	262.8	2.41E-02	3.60E-03	3.28E-03
201	0.5 MI NE - PMAC	1/11/2010	262.9	2.24E-02	3.49E-03	3.22E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Analysis: Beta*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>	
201	0.5 MI NE - PMAC	1/18/2010	262.2	3.03E-02	3.88E-03	3.17E-03
201	0.5 MI NE - PMAC	1/25/2010	272	1.32E-02	2.94E-03	3.25E-03
201	0.5 MI NE - PMAC	2/1/2010	265.4	1.98E-02	3.43E-03	3.47E-03
201	0.5 MI NE - PMAC	2/8/2010	280.2	1.96E-02	3.27E-03	3.23E-03
201	0.5 MI NE - PMAC	2/15/2010	249.9	1.43E-02	3.34E-03	3.87E-03
201	0.5 MI NE - PMAC	2/22/2010	263.4	1.82E-02	3.27E-03	3.27E-03
201	0.5 MI NE - PMAC	3/1/2010	267.2	1.91E-02	3.32E-03	3.31E-03
201	0.5 MI NE - PMAC	3/8/2010	260.7	1.31E-02	3.13E-03	3.63E-03
201	0.5 MI NE - PMAC	3/15/2010	269.4	2.11E-02	3.40E-03	3.25E-03
201	0.5 MI NE - PMAC	3/22/2010	269.4	1.65E-02	3.21E-03	3.41E-03
201	0.5 MI NE - PMAC	3/29/2010	269	1.67E-02	3.15E-03	3.23E-03
201	0.5 MI NE - PMAC	4/5/2010	271.2	1.71E-02	3.16E-03	3.23E-03
201	0.5 MI NE - PMAC	4/12/2010	273.2	1.75E-02	3.21E-03	3.31E-03
201	0.5 MI NE - PMAC	4/19/2010	271.5	2.14E-02	3.45E-03	3.39E-03
201	0.5 MI NE - PMAC	4/26/2010	274.2	2.86E-02	3.64E-03	2.88E-03
201	0.5 MI NE - PMAC	5/3/2010	273.8	1.95E-02	3.21E-03	3.00E-03
201	0.5 MI NE - PMAC	5/10/2010	275.6	1.90E-02	3.27E-03	3.26E-03
201	0.5 MI NE - PMAC	5/17/2010	275.3	2.40E-02	3.49E-03	3.13E-03
201	0.5 MI NE - PMAC	5/24/2010	277.4	1.11E-02	2.78E-03	3.21E-03
201	0.5 MI NE - PMAC	5/31/2010	276.9	1.28E-02	2.86E-03	3.14E-03
201	0.5 MI NE - PMAC	6/7/2010	276.6	1.41E-02	2.98E-03	3.25E-03
201	0.5 MI NE - PMAC	6/14/2010	263.6	2.16E-02	3.40E-03	3.09E-03
201	0.5 MI NE - PMAC	6/21/2010	276.3	1.72E-02	3.13E-03	3.17E-03
201	0.5 MI NE - PMAC	6/28/2010	279.6	1.11E-02	2.77E-03	3.21E-03
201	0.5 MI NE - PMAC	7/5/2010	281.2	1.31E-02	2.87E-03	3.17E-03
201	0.5 MI NE - PMAC	7/12/2010	275.1	2.12E-02	3.39E-03	3.27E-03
201	0.5 MI NE - PMAC	7/19/2010	240	1.88E-02	3.50E-03	3.53E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Analysis: Beta*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

<b>Sample Point</b>	<b>Sample Date</b>	<b>Quantity</b>	<b>Activity</b>	<b>2 Sigma Error</b>	<b>LLD</b>	
201	0.5 MI NE - PMAC	7/26/2010	280.3	2.13E-02	3.33E-03	3.15E-03
201	0.5 MI NE - PMAC	8/2/2010	284.5	1.97E-02	3.13E-03	2.86E-03
201	0.5 MI NE - PMAC	8/9/2010	287.6	1.81E-02	3.08E-03	2.99E-03
201	0.5 MI NE - PMAC	8/16/2010	287.8	1.40E-02	2.93E-03	3.21E-03
201	0.5 MI NE - PMAC	8/23/2010	281	1.48E-02	2.94E-03	3.05E-03
201	0.5 MI NE - PMAC	8/30/2010	286.7	1.81E-02	3.12E-03	3.10E-03
201	0.5 MI NE - PMAC	9/6/2010	291.7	3.79E-02	3.99E-03	2.92E-03
201	0.5 MI NE - PMAC	9/13/2010	284.2	2.97E-02	3.65E-03	2.85E-03
201	0.5 MI NE - PMAC	9/20/2010	284.1	3.22E-02	3.84E-03	3.10E-03
201	0.5 MI NE - PMAC	9/27/2010	287	2.83E-02	3.57E-03	2.88E-03
201	0.5 MI NE - PMAC	10/4/2010	276	1.15E-02	2.90E-03	3.43E-03
201	0.5 MI NE - PMAC	10/11/2010	283.6	2.84E-02	3.63E-03	3.00E-03
201	0.5 MI NE - PMAC	10/18/2010	275	3.87E-02	4.15E-03	3.04E-03
201	0.5 MI NE - PMAC	10/25/2010	279.2	3.42E-02	3.89E-03	2.88E-03
201	0.5 MI NE - PMAC	11/1/2010	280	1.46E-02	3.00E-03	3.25E-03
201	0.5 MI NE - PMAC	11/8/2010	274.5	1.52E-02	3.12E-03	3.39E-03
201	0.5 MI NE - PMAC	11/15/2010	270.1	2.23E-02	3.52E-03	3.40E-03
201	0.5 MI NE - PMAC	11/22/2010	274.3	3.06E-02	3.82E-03	3.13E-03
201	0.5 MI NE - PMAC	11/29/2010	275.3	2.19E-02	3.50E-03	3.46E-03
201	0.5 MI NE - PMAC	12/6/2010	266.7	2.96E-02	3.74E-03	2.89E-03
201	0.5 MI NE - PMAC	12/13/2010	252.6	2.05E-02	3.56E-03	3.58E-03
201	0.5 MI NE - PMAC	12/20/2010	246.8	2.03E-02	3.65E-03	3.75E-03
201	0.5 MI NE - PMAC	12/27/2010	241.7	2.65E-02	3.90E-03	3.46E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	1/4/2010	287.7	2.25E-02	3.31E-03	2.99E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	1/11/2010	289.4	2.03E-02	3.17E-03	2.92E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	1/18/2010	291.8	3.21E-02	3.71E-03	2.85E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	1/25/2010	296	1.41E-02	2.82E-03	2.99E-03

# BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Air Particulate

Analysis: Beta

Quantity: cubic meters

Activity: pCi/cubic meter

<b>Sample Point</b>	<b>Sample Date</b>	<b>Quantity</b>	<b>Activity</b>	<b>2 Sigma Error</b>	<b>LLD</b>	
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/1/2010	287.4	2.05E-02	3.28E-03	3.20E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/8/2010	299.3	1.56E-02	2.91E-03	3.03E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	273.5	1.66E-02	3.25E-03	3.54E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/22/2010	284.9	1.86E-02	3.12E-03	3.02E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	3/1/2010	283.4	1.62E-02	3.03E-03	3.12E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	3/8/2010	275.5	1.35E-02	3.03E-03	3.44E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	3/15/2010	290.9	2.15E-02	3.26E-03	3.01E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	3/22/2010	295.3	1.62E-02	2.99E-03	3.11E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	3/29/2010	289.7	1.82E-02	3.07E-03	3.00E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	4/5/2010	293.7	1.59E-02	2.93E-03	2.98E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	4/12/2010	293.6	1.91E-02	3.14E-03	3.08E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	4/19/2010	291.1	2.21E-02	3.33E-03	3.16E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	4/26/2010	293.4	2.34E-02	3.24E-03	2.69E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	5/3/2010	289.9	1.64E-02	2.92E-03	2.84E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	5/10/2010	293.1	1.77E-02	3.06E-03	3.06E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	5/17/2010	291.5	2.52E-02	3.42E-03	2.95E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	5/24/2010	294.9	1.12E-02	2.66E-03	3.02E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	5/31/2010	293.8	1.60E-02	2.92E-03	2.96E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	6/7/2010	293.3	1.26E-02	2.77E-03	3.06E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	6/14/2010	298.9	1.70E-02	2.88E-03	2.73E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	6/21/2010	294.4	1.95E-02	3.12E-03	2.98E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	6/28/2010	294.8	9.97E-03	2.59E-03	3.05E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	7/5/2010	294.7	9.64E-03	2.56E-03	3.02E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	7/12/2010	295.3	2.00E-02	3.17E-03	3.04E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	7/19/2010	294.5	2.03E-02	3.13E-03	2.87E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	7/26/2010	297	1.93E-02	3.10E-03	2.98E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	8/2/2010	282.3	1.70E-02	2.99E-03	2.89E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Analysis: Beta*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	<i><b>LLD</b></i>	
202	1.0 MI S - SUBSTATION ON CONSTRN RD	8/9/2010	285.4	1.54E-02	2.94E-03	3.02E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	8/16/2010	286.4	1.43E-02	2.96E-03	3.23E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	8/23/2010	285.7	1.37E-02	2.84E-03	3.00E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	8/30/2010	285.9	1.88E-02	3.17E-03	3.11E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	9/6/2010	290.2	4.16E-02	4.16E-03	2.93E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	9/13/2010	281.9	2.93E-02	3.65E-03	2.88E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	9/20/2010	282.7	3.95E-02	4.16E-03	3.12E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	9/27/2010	286	2.85E-02	3.59E-03	2.89E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	10/4/2010	281.6	1.15E-02	2.86E-03	3.36E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	10/11/2010	282.1	3.01E-02	3.72E-03	3.02E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	10/18/2010	278.9	3.96E-02	4.16E-03	2.99E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	10/25/2010	281.6	4.11E-02	4.17E-03	2.85E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	11/1/2010	282	1.48E-02	3.00E-03	3.23E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	11/8/2010	279	1.39E-02	3.00E-03	3.34E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	11/15/2010	276.7	2.38E-02	3.54E-03	3.32E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	11/22/2010	277.7	2.82E-02	3.68E-03	3.09E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	11/29/2010	277.9	2.29E-02	3.53E-03	3.43E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	12/6/2010	276.3	2.71E-02	3.54E-03	2.79E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	12/13/2010	272.3	2.03E-02	3.38E-03	3.32E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	12/20/2010	271.5	2.45E-02	3.63E-03	3.41E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	12/27/2010	272.3	2.43E-02	3.50E-03	3.07E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/4/2010	278.4	2.44E-02	3.48E-03	3.09E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/11/2010	279.8	2.20E-02	3.33E-03	3.02E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/18/2010	279.8	3.50E-02	3.94E-03	2.97E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	1/25/2010	284.8	1.39E-02	2.89E-03	3.10E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/1/2010	277.6	2.00E-02	3.33E-03	3.31E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/8/2010	289.2	1.94E-02	3.19E-03	3.13E-03

# *BSEP Radiological Environmental Monitoring Analysis Report*

Media Type: Air Particulate

Analysis: Beta

Quantity: cubic meters

Activity: pCi/cubic meter

<i>Sample Point</i>	<i>Sample Date</i>	<i>Quantity</i>	<i>Activity</i>	<i>2 Sigma Error</i>	<i>LLD</i>	
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/15/2010	260.1	1.44E-02	3.24E-03	3.72E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/22/2010	275.1	1.77E-02	3.15E-03	3.13E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/1/2010	277.2	1.70E-02	3.12E-03	3.19E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/8/2010	271.8	1.41E-02	3.09E-03	3.49E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/15/2010	279.3	1.99E-02	3.26E-03	3.14E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/22/2010	281.3	1.71E-02	3.14E-03	3.27E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	3/29/2010	274.3	1.96E-02	3.27E-03	3.17E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/5/2010	282.4	2.02E-02	3.25E-03	3.10E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/12/2010	282.9	2.08E-02	3.31E-03	3.20E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/19/2010	280.9	2.02E-02	3.32E-03	3.27E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	4/26/2010	284	2.72E-02	3.50E-03	2.78E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/3/2010	282.8	1.92E-02	3.13E-03	2.91E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/10/2010	288.6	1.87E-02	3.15E-03	3.11E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/17/2010	287.2	2.09E-02	3.23E-03	3.00E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/24/2010	291.5	1.22E-02	2.74E-03	3.06E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/31/2010	290.4	1.57E-02	2.93E-03	2.99E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/7/2010	289.8	1.27E-02	2.80E-03	3.10E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/14/2010	294.3	1.92E-02	3.04E-03	2.77E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/21/2010	289.2	1.77E-02	3.06E-03	3.03E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	6/28/2010	290.2	1.51E-02	2.94E-03	3.10E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/5/2010	290.4	9.10E-03	2.56E-03	3.07E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/12/2010	290.9	1.80E-02	3.09E-03	3.09E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/19/2010	291.8	1.82E-02	3.03E-03	2.90E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	7/26/2010	292.7	1.86E-02	3.09E-03	3.02E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/2/2010	285.5	1.77E-02	3.01E-03	2.85E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/9/2010	288.1	1.63E-02	2.97E-03	2.99E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/16/2010	287.8	1.19E-02	2.81E-03	3.21E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Beta*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>	
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/23/2010	288.5	1.27E-02	2.76E-03	2.98E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/30/2010	288.8	1.65E-02	3.02E-03	3.08E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/6/2010	293.4	3.38E-02	3.80E-03	2.90E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/13/2010	286.7	2.53E-02	3.41E-03	2.83E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/20/2010	286	3.66E-02	4.01E-03	3.08E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	9/27/2010	288.8	2.45E-02	3.37E-03	2.87E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/4/2010	280.6	1.11E-02	2.85E-03	3.37E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/11/2010	283.8	2.99E-02	3.70E-03	3.00E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/18/2010	279.8	3.98E-02	4.16E-03	2.99E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	10/25/2010	283.4	3.75E-02	4.00E-03	2.83E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/1/2010	282.5	1.52E-02	3.02E-03	3.22E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/8/2010	277.4	1.51E-02	3.08E-03	3.36E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/15/2010	278.7	2.41E-02	3.54E-03	3.29E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/22/2010	278.9	3.09E-02	3.79E-03	3.08E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/29/2010	279.3	2.10E-02	3.42E-03	3.41E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/6/2010	275	2.61E-02	3.50E-03	2.80E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/13/2010	269.5	1.75E-02	3.25E-03	3.35E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/20/2010	268.4	2.07E-02	3.46E-03	3.45E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	12/27/2010	271.9	2.09E-02	3.32E-03	3.07E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/4/2010	269.4	2.45E-02	3.56E-03	3.20E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/11/2010	268.9	2.18E-02	3.41E-03	3.15E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/18/2010	272.5	3.31E-02	3.91E-03	3.05E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	1/25/2010	275	1.30E-02	2.90E-03	3.21E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/1/2010	270.9	1.93E-02	3.35E-03	3.40E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/8/2010	272.3	1.86E-02	3.28E-03	3.33E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/15/2010	270.1	1.64E-02	3.27E-03	3.58E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/22/2010	272.1	1.79E-02	3.18E-03	3.17E-03



# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Analysis: Beta*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>	
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/1/2010	272.6	1.54E-02	3.06E-03	3.24E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/8/2010	271.3	1.34E-02	3.05E-03	3.49E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/15/2010	274.4	1.85E-02	3.22E-03	3.19E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/22/2010	275.8	1.30E-02	2.95E-03	3.33E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	3/29/2010	275.4	1.98E-02	3.27E-03	3.15E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/5/2010	278.4	1.85E-02	3.19E-03	3.15E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/12/2010	277.9	2.11E-02	3.37E-03	3.26E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/19/2010	277.7	2.27E-02	3.47E-03	3.31E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	4/26/2010	277.5	2.71E-02	3.54E-03	2.85E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/3/2010	278.8	1.73E-02	3.05E-03	2.95E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/10/2010	279.9	1.78E-02	3.16E-03	3.21E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/17/2010	279.2	2.17E-02	3.33E-03	3.08E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/24/2010	282.3	1.14E-02	2.76E-03	3.16E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/31/2010	277.6	1.38E-02	2.91E-03	3.13E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/7/2010	280.9	1.49E-02	2.99E-03	3.20E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/14/2010	281.7	1.57E-02	2.92E-03	2.89E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/21/2010	283.5	1.93E-02	3.19E-03	3.09E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	6/28/2010	281.2	1.47E-02	2.98E-03	3.19E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/5/2010	283.2	1.02E-02	2.68E-03	3.15E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/12/2010	279.6	2.09E-02	3.34E-03	3.21E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/19/2010	280.4	1.91E-02	3.17E-03	3.02E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	7/26/2010	279.3	2.22E-02	3.39E-03	3.16E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/2/2010	285.5	1.29E-02	2.72E-03	2.85E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/9/2010	286.9	1.96E-02	3.17E-03	3.00E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/16/2010	286.1	1.32E-02	2.89E-03	3.23E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/23/2010	287	1.82E-02	3.09E-03	2.99E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/30/2010	286.9	1.95E-02	3.20E-03	3.10E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Beta*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>	
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/6/2010	284.8	3.22E-02	3.80E-03	2.99E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/13/2010	300.1	2.45E-02	3.28E-03	2.70E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/20/2010	266.4	3.63E-02	4.18E-03	3.31E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	9/27/2010	283.3	3.13E-02	3.74E-03	2.92E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/4/2010	278	1.03E-02	2.81E-03	3.40E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/11/2010	279.1	2.83E-02	3.66E-03	3.05E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/18/2010	277	4.19E-02	4.27E-03	3.02E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	10/25/2010	277.3	3.73E-02	4.04E-03	2.90E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/1/2010	277.3	1.45E-02	3.02E-03	3.28E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/8/2010	273.8	1.65E-02	3.20E-03	3.40E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/15/2010	272.1	2.11E-02	3.44E-03	3.37E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/22/2010	272.3	2.60E-02	3.62E-03	3.15E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/29/2010	271.5	2.24E-02	3.56E-03	3.51E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/6/2010	265.5	2.65E-02	3.60E-03	2.90E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/13/2010	261.9	1.70E-02	3.28E-03	3.45E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/20/2010	262.7	2.22E-02	3.59E-03	3.52E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	12/27/2010	261.4	2.37E-02	3.56E-03	3.20E-03
205	0.6 MI SSE - SPOIL POND	1/4/2010	264	2.34E-02	3.55E-03	3.26E-03
205	0.6 MI SSE - SPOIL POND	1/11/2010	268.6	1.80E-02	3.19E-03	3.15E-03
205	0.6 MI SSE - SPOIL POND	1/18/2010	270.5	3.35E-02	3.95E-03	3.07E-03
205	0.6 MI SSE - SPOIL POND	1/25/2010	273.2	1.40E-02	2.98E-03	3.23E-03
205	0.6 MI SSE - SPOIL POND	2/1/2010	266.8	2.17E-02	3.51E-03	3.45E-03
205	0.6 MI SSE - SPOIL POND	2/8/2010	276.6	1.75E-02	3.19E-03	3.27E-03
205	0.6 MI SSE - SPOIL POND	2/15/2010	257.1	1.39E-02	3.24E-03	3.77E-03
205	0.6 MI SSE - SPOIL POND	2/22/2010	270.6	1.85E-02	3.23E-03	3.18E-03
205	0.6 MI SSE - SPOIL POND	3/1/2010	274.1	1.83E-02	3.22E-03	3.22E-03
205	0.6 MI SSE - SPOIL POND	3/8/2010	268.2	1.27E-02	3.04E-03	3.53E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Analysis: Beta*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

<b>Sample Point</b>	<b>Sample Date</b>	<b>Quantity</b>	<b>Activity</b>	<b>2 Sigma Error</b>	<b>LLD</b>	
205	0.6 MI SSE - SPOIL POND	3/15/2010	278.1	1.88E-02	3.20E-03	3.15E-03
205	0.6 MI SSE - SPOIL POND	3/22/2010	277	1.70E-02	3.17E-03	3.32E-03
205	0.6 MI SSE - SPOIL POND	3/29/2010	272.6	1.73E-02	3.16E-03	3.19E-03
205	0.6 MI SSE - SPOIL POND	4/5/2010	276.9	1.65E-02	3.09E-03	3.16E-03
205	0.6 MI SSE - SPOIL POND	4/12/2010	275.8	2.15E-02	3.41E-03	3.28E-03
205	0.6 MI SSE - SPOIL POND	4/19/2010	273.7	2.35E-02	3.55E-03	3.36E-03
205	0.6 MI SSE - SPOIL POND	4/26/2010	278.7	2.75E-02	3.55E-03	2.84E-03
205	0.6 MI SSE - SPOIL POND	5/3/2010	276.1	1.70E-02	3.05E-03	2.98E-03
205	0.6 MI SSE - SPOIL POND	5/10/2010	277	1.39E-02	2.96E-03	3.24E-03
205	0.6 MI SSE - SPOIL POND	5/17/2010	276.7	2.77E-02	3.66E-03	3.11E-03
205	0.6 MI SSE - SPOIL POND	5/24/2010	277.3	1.37E-02	2.94E-03	3.21E-03
205	0.6 MI SSE - SPOIL POND	5/31/2010	277	1.25E-02	2.83E-03	3.14E-03
205	0.6 MI SSE - SPOIL POND	6/7/2010	277.8	1.43E-02	2.98E-03	3.23E-03
205	0.6 MI SSE - SPOIL POND	6/14/2010	280.9	1.71E-02	3.01E-03	2.90E-03
205	0.6 MI SSE - SPOIL POND	6/21/2010	254.6	1.82E-02	3.37E-03	3.44E-03
205	0.6 MI SSE - SPOIL POND	6/28/2010	295.1	9.54E-03	2.57E-03	3.04E-03
205	0.6 MI SSE - SPOIL POND	7/5/2010	293	1.21E-02	2.73E-03	3.04E-03
205	0.6 MI SSE - SPOIL POND	7/12/2010	293.4	1.97E-02	3.17E-03	3.06E-03
205	0.6 MI SSE - SPOIL POND	7/19/2010	246.3	1.85E-02	3.42E-03	3.44E-03
205	0.6 MI SSE - SPOIL POND	7/26/2010	299.3	1.73E-02	2.98E-03	2.95E-03
205	0.6 MI SSE - SPOIL POND	8/2/2010	284.2	1.86E-02	3.07E-03	2.87E-03
205	0.6 MI SSE - SPOIL POND	8/9/2010	288.1	1.35E-02	2.81E-03	2.99E-03
205	0.6 MI SSE - SPOIL POND	8/16/2010	289.1	1.51E-02	2.98E-03	3.20E-03
205	0.6 MI SSE - SPOIL POND	8/23/2010	287.9	1.46E-02	2.88E-03	2.98E-03
205	0.6 MI SSE - SPOIL POND	8/30/2010	288.4	1.93E-02	3.18E-03	3.08E-03
205	0.6 MI SSE - SPOIL POND	9/6/2010	293	3.48E-02	3.85E-03	2.90E-03
205	0.6 MI SSE - SPOIL POND	9/13/2010	284.3	2.70E-02	3.51E-03	2.85E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Analysis: Beta*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	<i><b>LLD</b></i>	
205	0.6 MI SSE - SPOIL POND	9/20/2010	285.5	3.33E-02	3.87E-03	3.09E-03
205	0.6 MI SSE - SPOIL POND	9/27/2010	289.1	2.59E-02	3.44E-03	2.86E-03
205	0.6 MI SSE - SPOIL POND	10/4/2010	282.1	9.60E-03	2.74E-03	3.35E-03
205	0.6 MI SSE - SPOIL POND	10/11/2010	283.8	2.78E-02	3.60E-03	3.00E-03
205	0.6 MI SSE - SPOIL POND	10/18/2010	281.7	3.75E-02	4.04E-03	2.96E-03
205	0.6 MI SSE - SPOIL POND	10/25/2010	284.4	4.22E-02	4.19E-03	2.82E-03
205	0.6 MI SSE - SPOIL POND	11/1/2010	283.3	1.74E-02	3.14E-03	3.21E-03
205	0.6 MI SSE - SPOIL POND	11/8/2010	278.5	1.53E-02	3.09E-03	3.35E-03
205	0.6 MI SSE - SPOIL POND	11/15/2010	277.5	2.38E-02	3.53E-03	3.31E-03
205	0.6 MI SSE - SPOIL POND	11/22/2010	279.9	2.69E-02	3.60E-03	3.07E-03
205	0.6 MI SSE - SPOIL POND	11/29/2010	279.5	2.24E-02	3.49E-03	3.41E-03
205	0.6 MI SSE - SPOIL POND	12/6/2010	275.5	2.74E-02	3.56E-03	2.79E-03
205	0.6 MI SSE - SPOIL POND	12/13/2010	269.5	2.16E-02	3.47E-03	3.35E-03
205	0.6 MI SSE - SPOIL POND	12/20/2010	268.2	2.20E-02	3.53E-03	3.45E-03
205	0.6 MI SSE - SPOIL POND	12/27/2010	270.8	2.16E-02	3.37E-03	3.09E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	1/4/2010	266.8	2.25E-02	3.48E-03	3.23E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	1/11/2010	266.2	2.26E-02	3.47E-03	3.18E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	1/18/2010	267.7	3.06E-02	3.84E-03	3.10E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	1/25/2010	271	1.59E-02	3.11E-03	3.26E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	2/1/2010	267.2	2.16E-02	3.51E-03	3.44E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	2/8/2010	268.8	1.96E-02	3.36E-03	3.37E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	2/15/2010	267.5	1.60E-02	3.27E-03	3.62E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	2/22/2010	268.3	1.96E-02	3.31E-03	3.21E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	3/1/2010	269.3	1.86E-02	3.28E-03	3.28E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	3/8/2010	267.3	1.61E-02	3.25E-03	3.55E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	3/15/2010	269.7	1.82E-02	3.24E-03	3.25E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	3/22/2010	270.4	1.68E-02	3.22E-03	3.40E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Particulate

Analysis: Beta

Quantity: cubic meters

Activity: pCi/cubic meter

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>	
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	3/29/2010	271.1	2.16E-02	3.40E-03	3.20E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	4/5/2010	272.8	2.07E-02	3.35E-03	3.21E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	4/12/2010	272.9	1.94E-02	3.32E-03	3.32E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	4/19/2010	272.6	2.53E-02	3.65E-03	3.37E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	4/26/2010	272.5	2.86E-02	3.66E-03	2.90E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	5/3/2010	274	1.96E-02	3.21E-03	3.00E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	5/10/2010	274.4	2.00E-02	3.33E-03	3.27E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	5/17/2010	274.3	2.71E-02	3.65E-03	3.14E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	5/24/2010	276.5	1.22E-02	2.86E-03	3.22E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	5/31/2010	272.7	1.63E-02	3.10E-03	3.19E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	6/7/2010	276.3	1.45E-02	3.01E-03	3.25E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	6/14/2010	276	1.89E-02	3.15E-03	2.95E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	6/21/2010	277.2	1.87E-02	3.21E-03	3.16E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	6/28/2010	276.1	1.37E-02	2.96E-03	3.25E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	7/5/2010	277.7	1.50E-02	3.01E-03	3.21E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	7/12/2010	273.5	2.15E-02	3.42E-03	3.28E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	7/19/2010	275.9	1.84E-02	3.16E-03	3.07E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	7/26/2010	277.2	1.91E-02	3.24E-03	3.19E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	8/2/2010	286	1.89E-02	3.08E-03	2.85E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	8/9/2010	287	1.86E-02	3.11E-03	3.00E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	8/16/2010	286.4	1.68E-02	3.10E-03	3.23E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	8/23/2010	288.3	1.61E-02	2.96E-03	2.98E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	8/30/2010	289.5	2.19E-02	3.30E-03	3.07E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	9/6/2010	288.8	3.44E-02	3.86E-03	2.95E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	9/13/2010	289.8	3.17E-02	3.69E-03	2.80E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	9/20/2010	288.8	3.57E-02	3.95E-03	3.05E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	9/27/2010	287.7	3.22E-02	3.75E-03	2.88E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Particulate*

*Analysis: Beta*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>	
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	10/4/2010	285.9	1.06E-02	2.77E-03	3.31E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	10/11/2010	286.3	2.87E-02	3.62E-03	2.97E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	10/18/2010	281.1	3.73E-02	4.04E-03	2.97E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	10/25/2010	285.9	4.16E-02	4.15E-03	2.81E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	11/1/2010	286.4	1.68E-02	3.08E-03	3.18E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	11/8/2010	283.1	1.73E-02	3.16E-03	3.29E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	11/15/2010	281.6	2.40E-02	3.51E-03	3.26E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	11/22/2010	283.6	3.08E-02	3.75E-03	3.03E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	11/29/2010	283.5	2.22E-02	3.45E-03	3.36E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	12/6/2010	277.1	3.21E-02	3.77E-03	2.78E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	12/13/2010	274.9	1.85E-02	3.26E-03	3.29E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	12/20/2010	276.2	2.64E-02	3.68E-03	3.35E-03
206	11.3 MI NW - BRUNSWICK COUNTY COMPLEX (	12/27/2010	275.5	2.35E-02	3.43E-03	3.03E-03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Cartridge*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Iodine*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
200 1.0 MI WSW - VISITORS CENTER	1/4/2010	260.8	<LLD	2.55E-02
200 1.0 MI WSW - VISITORS CENTER	1/11/2010	285.9	<LLD	2.14E-02
200 1.0 MI WSW - VISITORS CENTER	1/18/2010	272.4	<LLD	1.30E-02
200 1.0 MI WSW - VISITORS CENTER	1/25/2010	283.9	<LLD	2.38E-02
200 1.0 MI WSW - VISITORS CENTER	2/1/2010	278.9	<LLD	2.59E-02
200 1.0 MI WSW - VISITORS CENTER	2/8/2010	290.1	<LLD	2.56E-02
200 1.0 MI WSW - VISITORS CENTER	2/15/2010	268.1	<LLD	2.49E-02
200 1.0 MI WSW - VISITORS CENTER	2/22/2010	268.1	<LLD	2.60E-02
200 1.0 MI WSW - VISITORS CENTER	3/1/2010	280.7	<LLD	2.12E-02
200 1.0 MI WSW - VISITORS CENTER	3/8/2010	273.6	<LLD	2.61E-02
200 1.0 MI WSW - VISITORS CENTER	3/15/2010	283.3	<LLD	2.54E-02
200 1.0 MI WSW - VISITORS CENTER	3/22/2010	283.4	<LLD	1.96E-02
200 1.0 MI WSW - VISITORS CENTER	3/29/2010	281.7	<LLD	1.89E-02
200 1.0 MI WSW - VISITORS CENTER	4/5/2010	284.4	<LLD	1.69E-02
200 1.0 MI WSW - VISITORS CENTER	4/12/2010	284.7	<LLD	2.37E-02
200 1.0 MI WSW - VISITORS CENTER	4/19/2010	283.4	<LLD	2.35E-02
200 1.0 MI WSW - VISITORS CENTER	4/26/2010	286.3	<LLD	2.36E-02
200 1.0 MI WSW - VISITORS CENTER	5/3/2010	284.1	<LLD	1.94E-02
200 1.0 MI WSW - VISITORS CENTER	5/10/2010	285.1	<LLD	2.07E-02
200 1.0 MI WSW - VISITORS CENTER	5/17/2010	285.0	<LLD	1.98E-02
200 1.0 MI WSW - VISITORS CENTER	5/24/2010	287.5	<LLD	1.63E-02
200 1.0 MI WSW - VISITORS CENTER	5/31/2010	286.3	<LLD	2.56E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<i>Sample Point</i>	<i>Sample Date</i>	<i>Quantity</i>	<i>Activity</i>	<i>LLD</i>
200 1.0 MI WSW - VISITORS CENTER	6/7/2010	285.8	<LLD	2.22E-02
200 1.0 MI WSW - VISITORS CENTER	6/14/2010	290.6	<LLD	2.27E-02
200 1.0 MI WSW - VISITORS CENTER	6/21/2010	285.7	<LLD	2.07E-02
200 1.0 MI WSW - VISITORS CENTER	6/28/2010	287.2	<LLD	1.62E-02
200 1.0 MI WSW - VISITORS CENTER	7/5/2010	289.4	<LLD	1.86E-02
200 1.0 MI WSW - VISITORS CENTER	7/12/2010	285.8	<LLD	2.25E-02
200 1.0 MI WSW - VISITORS CENTER	7/19/2010	287.6	<LLD	1.75E-02
200 1.0 MI WSW - VISITORS CENTER	7/26/2010	291.5	<LLD	1.85E-02
200 1.0 MI WSW - VISITORS CENTER	8/2/2010	284.1	<LLD	2.24E-02
200 1.0 MI WSW - VISITORS CENTER	8/9/2010	286.5	<LLD	2.18E-02
200 1.0 MI WSW - VISITORS CENTER	8/16/2010	287.3	<LLD	2.55E-02
200 1.0 MI WSW - VISITORS CENTER	8/23/2010	287.0	<LLD	2.27E-02
200 1.0 MI WSW - VISITORS CENTER	8/30/2010	287.0	<LLD	2.42E-02
200 1.0 MI WSW - VISITORS CENTER	9/6/2010	291.1	<LLD	2.34E-02
200 1.0 MI WSW - VISITORS CENTER	9/13/2010	283.8	<LLD	2.23E-02
200 1.0 MI WSW - VISITORS CENTER	9/20/2010	283.8	<LLD	2.53E-02
200 1.0 MI WSW - VISITORS CENTER	9/27/2010	286.8	<LLD	2.81E-02
200 1.0 MI WSW - VISITORS CENTER	10/4/2010	279.5	<LLD	2.28E-02
200 1.0 MI WSW - VISITORS CENTER	10/11/2010	284.1	<LLD	2.23E-02
200 1.0 MI WSW - VISITORS CENTER	10/18/2010	277.5	<LLD	2.15E-02
200 1.0 MI WSW - VISITORS CENTER	10/25/2010	281.4	<LLD	2.24E-02
200 1.0 MI WSW - VISITORS CENTER	11/1/2010	281.0	<LLD	2.00E-02



# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
200 1.0 MI WSW - VISITORS CENTER	11/8/2010	278.0	<LLD	2.39E-02
200 1.0 MI WSW - VISITORS CENTER	11/15/2010	276.4	<LLD	1.91E-02
200 1.0 MI WSW - VISITORS CENTER	11/22/2010	277.4	<LLD	1.94E-02
200 1.0 MI WSW - VISITORS CENTER	11/29/2010	276.9	<LLD	2.01E-02
200 1.0 MI WSW - VISITORS CENTER	12/6/2010	274.5	<LLD	2.19E-02
200 1.0 MI WSW - VISITORS CENTER	12/13/2010	269.6	<LLD	2.06E-02
200 1.0 MI WSW - VISITORS CENTER	12/20/2010	267.5	<LLD	2.29E-02
200 1.0 MI WSW - VISITORS CENTER	12/27/2010	268.7	<LLD	2.95E-02
201 0.5 MI NE - PMAC	1/4/2010	262.8	<LLD	2.05E-02
201 0.5 MI NE - PMAC	1/11/2010	262.9	<LLD	2.21E-02
201 0.5 MI NE - PMAC	1/18/2010	262.2	<LLD	2.18E-02
201 0.5 MI NE - PMAC	1/25/2010	272.0	<LLD	1.82E-02
201 0.5 MI NE - PMAC	2/1/2010	265.4	<LLD	2.22E-02
201 0.5 MI NE - PMAC	2/8/2010	280.2	<LLD	1.68E-02
201 0.5 MI NE - PMAC	2/15/2010	249.9	<LLD	2.16E-02
201 0.5 MI NE - PMAC	2/22/2010	263.4	<LLD	1.70E-02
201 0.5 MI NE - PMAC	3/1/2010	267.2	<LLD	2.02E-02
201 0.5 MI NE - PMAC	3/8/2010	260.7	<LLD	1.76E-02
201 0.5 MI NE - PMAC	3/15/2010	269.4	<LLD	2.10E-02
201 0.5 MI NE - PMAC	3/22/2010	269.4	<LLD	1.69E-02
201 0.5 MI NE - PMAC	3/29/2010	269.0	<LLD	1.32E-02
201 0.5 MI NE - PMAC	4/5/2010	271.2	<LLD	1.91E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Cartridge*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Iodine*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
201 0.5 MI NE - PMAC	4/12/2010	273.2	<LLD	1.94E-02
201 0.5 MI NE - PMAC	4/19/2010	271.5	<LLD	1.95E-02
201 0.5 MI NE - PMAC	4/26/2010	274.2	<LLD	1.81E-02
201 0.5 MI NE - PMAC	5/3/2010	273.8	<LLD	1.83E-02
201 0.5 MI NE - PMAC	5/10/2010	275.6	<LLD	2.08E-02
201 0.5 MI NE - PMAC	5/17/2010	275.3	<LLD	2.64E-02
201 0.5 MI NE - PMAC	5/24/2010	277.4	<LLD	2.24E-02
201 0.5 MI NE - PMAC	5/31/2010	276.9	<LLD	2.24E-02
201 0.5 MI NE - PMAC	6/7/2010	276.6	<LLD	1.91E-02
201 0.5 MI NE - PMAC	6/14/2010	263.6	<LLD	2.02E-02
201 0.5 MI NE - PMAC	6/21/2010	276.3	<LLD	2.18E-02
201 0.5 MI NE - PMAC	6/28/2010	279.6	<LLD	1.59E-02
201 0.5 MI NE - PMAC	7/5/2010	281.2	<LLD	1.64E-02
201 0.5 MI NE - PMAC	7/12/2010	275.1	<LLD	2.07E-02
201 0.5 MI NE - PMAC	7/19/2010	240.0	<LLD	2.18E-02
201 0.5 MI NE - PMAC	7/26/2010	280.3	<LLD	1.93E-02
201 0.5 MI NE - PMAC	8/2/2010	284.5	<LLD	2.32E-02
201 0.5 MI NE - PMAC	8/9/2010	287.6	<LLD	1.85E-02
201 0.5 MI NE - PMAC	8/16/2010	287.8	<LLD	1.66E-02
201 0.5 MI NE - PMAC	8/23/2010	281.0	<LLD	1.90E-02
201 0.5 MI NE - PMAC	8/30/2010	286.7	<LLD	1.88E-02
201 0.5 MI NE - PMAC	9/6/2010	291.7	<LLD	2.18E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Cartridge*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Iodine*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
201 0.5 MI NE - PMAC	9/13/2010	284.2	<LLD	2.23E-02
201 0.5 MI NE - PMAC	9/20/2010	284.1	<LLD	1.80E-02
201 0.5 MI NE - PMAC	9/27/2010	287.0	<LLD	2.08E-02
201 0.5 MI NE - PMAC	10/4/2010	276.0	<LLD	2.19E-02
201 0.5 MI NE - PMAC	10/11/2010	283.6	<LLD	2.68E-02
201 0.5 MI NE - PMAC	10/18/2010	275.0	<LLD	2.31E-02
201 0.5 MI NE - PMAC	10/25/2010	279.2	<LLD	2.32E-02
201 0.5 MI NE - PMAC	11/1/2010	280.0	<LLD	1.51E-02
201 0.5 MI NE - PMAC	11/8/2010	274.5	<LLD	2.22E-02
201 0.5 MI NE - PMAC	11/15/2010	270.1	<LLD	1.78E-02
201 0.5 MI NE - PMAC	11/22/2010	274.3	<LLD	2.23E-02
201 0.5 MI NE - PMAC	11/29/2010	275.3	<LLD	2.48E-02
201 0.5 MI NE - PMAC	12/6/2010	266.7	<LLD	2.56E-02
201 0.5 MI NE - PMAC	12/13/2010	252.6	<LLD	1.76E-02
201 0.5 MI NE - PMAC	12/20/2010	246.8	<LLD	2.98E-02
201 0.5 MI NE - PMAC	12/27/2010	241.7	<LLD	2.01E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	1/4/2010	287.7	<LLD	1.80E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	1/11/2010	289.4	<LLD	1.53E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	1/18/2010	291.8	<LLD	2.01E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	1/25/2010	296.0	<LLD	1.57E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	2/1/2010	287.4	<LLD	1.74E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	2/8/2010	299.3	<LLD	1.79E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Cartridge*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Iodine*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
202 1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	273.5	<LLD	1.60E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	2/22/2010	284.9	<LLD	1.76E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	3/1/2010	283.4	<LLD	2.29E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	3/8/2010	275.5	<LLD	1.81E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	3/15/2010	290.9	<LLD	1.67E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	3/22/2010	295.3	<LLD	1.89E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	3/29/2010	289.7	<LLD	2.17E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	4/5/2010	293.7	<LLD	1.86E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	4/12/2010	293.6	<LLD	1.64E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	4/19/2010	291.1	<LLD	1.53E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	4/26/2010	293.4	<LLD	1.65E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	5/3/2010	289.9	<LLD	1.70E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	5/10/2010	293.1	<LLD	2.10E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	5/17/2010	291.5	<LLD	1.46E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	5/24/2010	294.9	<LLD	2.18E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	5/31/2010	293.8	<LLD	1.87E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	6/7/2010	293.3	<LLD	1.44E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	6/14/2010	298.9	<LLD	1.99E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	6/21/2010	294.4	<LLD	1.44E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	6/28/2010	294.8	<LLD	1.65E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	7/5/2010	294.7	<LLD	1.88E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	7/12/2010	295.3	<LLD	2.07E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
202 1.0 MI S - SUBSTATION ON CONSTRN RD	7/19/2010	294.5	<LLD	1.74E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	7/26/2010	297.0	<LLD	2.34E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	8/2/2010	282.3	<LLD	1.89E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	8/9/2010	285.4	<LLD	2.71E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	8/16/2010	286.4	<LLD	2.06E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	8/23/2010	285.7	<LLD	1.70E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	8/30/2010	285.9	<LLD	2.33E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	9/6/2010	290.2	<LLD	1.67E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	9/13/2010	281.9	<LLD	1.87E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	9/20/2010	282.7	<LLD	1.85E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	9/27/2010	286.0	<LLD	2.12E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	10/4/2010	281.6	<LLD	1.89E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	10/11/2010	282.1	<LLD	1.80E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	10/18/2010	278.9	<LLD	1.18E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	10/25/2010	281.6	<LLD	1.91E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	11/1/2010	282.0	<LLD	2.18E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	11/8/2010	279.0	<LLD	1.72E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	11/15/2010	276.7	<LLD	2.01E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	11/22/2010	277.7	<LLD	1.44E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	11/29/2010	277.9	<LLD	2.25E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	12/6/2010	276.3	<LLD	1.87E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	12/13/2010	272.3	<LLD	1.86E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Cartridge*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Iodine*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
202 1.0 MI S - SUBSTATION ON CONSTRN RD	12/20/2010	271.5	<LLD	1.31E-02
202 1.0 MI S - SUBSTATION ON CONSTRN RD	12/27/2010	272.3	<LLD	2.51E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	1/4/2010	278.4	<LLD	2.32E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	1/11/2010	279.8	<LLD	2.27E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	1/18/2010	279.8	<LLD	2.36E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	1/25/2010	284.8	<LLD	2.16E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	2/1/2010	277.6	<LLD	1.67E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	2/8/2010	289.2	<LLD	2.66E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	2/15/2010	260.1	<LLD	2.62E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	2/22/2010	275.1	<LLD	2.28E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	3/1/2010	277.2	<LLD	2.43E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	3/8/2010	271.8	<LLD	2.13E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	3/15/2010	279.3	<LLD	2.44E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	3/22/2010	281.3	<LLD	2.07E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	3/29/2010	274.3	<LLD	2.85E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	4/5/2010	282.4	<LLD	1.65E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	4/12/2010	282.9	<LLD	2.21E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	4/19/2010	280.9	<LLD	2.15E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	4/26/2010	284.0	<LLD	1.87E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	5/3/2010	282.8	<LLD	2.46E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	5/10/2010	288.6	<LLD	2.48E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	5/17/2010	287.2	<LLD	2.33E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Cartridge*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Iodine*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
203 2.0 MI SSW - SOUTHPORT SUBSTATION	5/24/2010	291.5	<LLD	2.29E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	5/31/2010	290.4	<LLD	2.50E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	6/7/2010	289.8	<LLD	2.00E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	6/14/2010	294.3	<LLD	2.35E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	6/21/2010	289.2	<LLD	1.79E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	6/28/2010	290.2	<LLD	1.14E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	7/5/2010	290.4	<LLD	1.88E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	7/12/2010	290.9	<LLD	2.02E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	7/19/2010	291.8	<LLD	1.92E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	7/26/2010	292.7	<LLD	1.85E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	8/2/2010	285.5	<LLD	1.63E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	8/9/2010	288.1	<LLD	1.92E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	8/16/2010	287.8	<LLD	1.68E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	8/23/2010	288.5	<LLD	1.77E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	8/30/2010	288.8	<LLD	1.72E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	9/6/2010	293.4	<LLD	2.44E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	9/13/2010	286.7	<LLD	2.25E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	9/20/2010	286.0	<LLD	2.00E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	9/27/2010	288.8	<LLD	2.59E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	10/4/2010	280.6	<LLD	1.92E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	10/11/2010	283.8	<LLD	2.00E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	10/18/2010	279.8	<LLD	1.95E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
203 2.0 MI SSW - SOUTHPORT SUBSTATION	10/25/2010	283.4	<LLD	2.19E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	11/1/2010	282.5	<LLD	2.67E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	11/8/2010	277.4	<LLD	1.96E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	11/15/2010	278.7	<LLD	2.06E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	11/22/2010	278.9	<LLD	2.12E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	11/29/2010	279.3	<LLD	2.61E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	12/6/2010	275.0	<LLD	2.66E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	12/13/2010	269.5	<LLD	2.93E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	12/20/2010	268.4	<LLD	2.33E-02
203 2.0 MI SSW - SOUTHPORT SUBSTATION	12/27/2010	271.9	<LLD	2.09E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	1/4/2010	269.4	<LLD	1.84E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	1/11/2010	268.9	<LLD	2.52E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	1/18/2010	272.5	<LLD	1.85E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	1/25/2010	275.0	<LLD	1.98E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	2/1/2010	270.9	<LLD	1.49E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	2/8/2010	272.3	<LLD	2.42E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	2/15/2010	270.1	<LLD	2.93E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	2/22/2010	272.1	<LLD	2.77E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	3/1/2010	272.6	<LLD	1.79E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	3/8/2010	271.3	<LLD	1.76E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	3/15/2010	274.4	<LLD	2.45E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	3/22/2010	275.8	<LLD	1.57E-02



# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Cartridge*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Iodine*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	3/29/2010	275.4	<LLD	1.94E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	4/5/2010	278.4	<LLD	2.44E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	4/12/2010	277.9	<LLD	2.64E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	4/19/2010	277.7	<LLD	1.88E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	4/26/2010	277.5	<LLD	2.65E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	5/3/2010	278.8	<LLD	2.37E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	5/10/2010	279.9	<LLD	1.82E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	5/17/2010	279.2	<LLD	2.13E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	5/24/2010	282.3	<LLD	2.11E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	5/31/2010	277.6	<LLD	2.08E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	6/7/2010	280.9	<LLD	2.45E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	6/14/2010	281.7	<LLD	2.05E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	6/21/2010	283.5	<LLD	2.06E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	6/28/2010	281.2	<LLD	1.99E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	7/5/2010	283.2	<LLD	2.49E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	7/12/2010	279.6	<LLD	2.00E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	7/19/2010	280.4	<LLD	1.93E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	7/26/2010	279.3	<LLD	2.42E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	8/2/2010	285.5	<LLD	2.38E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	8/9/2010	286.9	<LLD	2.38E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	8/16/2010	286.1	<LLD	2.21E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	8/23/2010	287.0	<LLD	2.24E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	8/30/2010	286.9	<LLD	2.03E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	9/6/2010	284.8	<LLD	2.56E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	9/13/2010	300.1	<LLD	2.19E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	9/20/2010	266.4	<LLD	2.56E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	9/27/2010	283.3	<LLD	1.63E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	10/4/2010	278.0	<LLD	2.33E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	10/11/2010	279.1	<LLD	2.12E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	10/18/2010	277.0	<LLD	1.92E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	10/25/2010	277.3	<LLD	1.48E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/1/2010	277.3	<LLD	1.84E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/8/2010	273.8	<LLD	2.43E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/15/2010	272.1	<LLD	1.71E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/22/2010	272.3	<LLD	2.82E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/29/2010	271.5	<LLD	2.23E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	12/6/2010	265.5	<LLD	2.14E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	12/13/2010	261.9	<LLD	1.62E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	12/20/2010	262.7	<LLD	2.66E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	12/27/2010	261.4	<LLD	3.08E-02
205 0.6 MI SSE - SPOIL POND	1/4/2010	264.0	<LLD	1.83E-02
205 0.6 MI SSE - SPOIL POND	1/11/2010	268.6	<LLD	2.02E-02
205 0.6 MI SSE - SPOIL POND	1/18/2010	270.5	<LLD	2.63E-02
205 0.6 MI SSE - SPOIL POND	1/25/2010	273.2	<LLD	1.21E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
205 0.6 MI SSE - SPOIL POND	2/1/2010	266.8	<LLD	1.95E-02
205 0.6 MI SSE - SPOIL POND	2/8/2010	276.6	<LLD	1.84E-02
205 0.6 MI SSE - SPOIL POND	2/15/2010	257.1	<LLD	2.83E-02
205 0.6 MI SSE - SPOIL POND	2/22/2010	270.6	<LLD	1.84E-02
205 0.6 MI SSE - SPOIL POND	3/1/2010	274.1	<LLD	2.64E-02
205 0.6 MI SSE - SPOIL POND	3/8/2010	268.2	<LLD	1.40E-02
205 0.6 MI SSE - SPOIL POND	3/15/2010	278.1	<LLD	2.19E-02
205 0.6 MI SSE - SPOIL POND	3/22/2010	277.0	<LLD	2.39E-02
205 0.6 MI SSE - SPOIL POND	3/29/2010	272.6	<LLD	1.72E-02
205 0.6 MI SSE - SPOIL POND	4/5/2010	276.9	<LLD	1.29E-02
205 0.6 MI SSE - SPOIL POND	4/12/2010	275.8	<LLD	1.38E-02
205 0.6 MI SSE - SPOIL POND	4/19/2010	273.7	<LLD	1.82E-02
205 0.6 MI SSE - SPOIL POND	4/26/2010	278.7	<LLD	1.83E-02
205 0.6 MI SSE - SPOIL POND	5/3/2010	276.1	<LLD	1.76E-02
205 0.6 MI SSE - SPOIL POND	5/10/2010	277.0	<LLD	2.14E-02
205 0.6 MI SSE - SPOIL POND	5/17/2010	276.7	<LLD	2.38E-02
205 0.6 MI SSE - SPOIL POND	5/24/2010	277.3	<LLD	2.54E-02
205 0.6 MI SSE - SPOIL POND	5/31/2010	277.0	<LLD	2.66E-02
205 0.6 MI SSE - SPOIL POND	6/7/2010	277.8	<LLD	1.87E-02
205 0.6 MI SSE - SPOIL POND	6/14/2010	280.9	<LLD	2.43E-02
205 0.6 MI SSE - SPOIL POND	6/21/2010	254.6	<LLD	1.67E-02
205 0.6 MI SSE - SPOIL POND	6/28/2010	295.1	<LLD	2.45E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>
205 0.6 MI SSE - SPOIL POND	7/5/2010	293.0	<LLD	1.85E-02
205 0.6 MI SSE - SPOIL POND	7/12/2010	293.4	<LLD	2.05E-02
205 0.6 MI SSE - SPOIL POND	7/19/2010	246.3	<LLD	2.83E-02
205 0.6 MI SSE - SPOIL POND	7/26/2010	299.3	<LLD	1.44E-02
205 0.6 MI SSE - SPOIL POND	8/2/2010	284.2	<LLD	2.14E-02
205 0.6 MI SSE - SPOIL POND	8/9/2010	288.1	<LLD	1.61E-02
205 0.6 MI SSE - SPOIL POND	8/16/2010	289.1	<LLD	1.82E-02
205 0.6 MI SSE - SPOIL POND	8/23/2010	287.9	<LLD	1.74E-02
205 0.6 MI SSE - SPOIL POND	8/30/2010	288.4	<LLD	1.73E-02
205 0.6 MI SSE - SPOIL POND	9/6/2010	293.0	<LLD	1.71E-02
205 0.6 MI SSE - SPOIL POND	9/13/2010	284.3	<LLD	2.35E-02
205 0.6 MI SSE - SPOIL POND	9/20/2010	285.5	<LLD	2.56E-02
205 0.6 MI SSE - SPOIL POND	9/27/2010	289.1	<LLD	2.18E-02
205 0.6 MI SSE - SPOIL POND	10/4/2010	282.1	<LLD	2.19E-02
205 0.6 MI SSE - SPOIL POND	10/11/2010	283.8	<LLD	1.95E-02
205 0.6 MI SSE - SPOIL POND	10/18/2010	281.7	<LLD	1.59E-02
205 0.6 MI SSE - SPOIL POND	10/25/2010	284.4	<LLD	2.30E-02
205 0.6 MI SSE - SPOIL POND	11/1/2010	283.3	<LLD	1.78E-02
205 0.6 MI SSE - SPOIL POND	11/8/2010	278.5	<LLD	1.90E-02
205 0.6 MI SSE - SPOIL POND	11/15/2010	277.5	<LLD	2.09E-02
205 0.6 MI SSE - SPOIL POND	11/22/2010	279.9	<LLD	1.66E-02
205 0.6 MI SSE - SPOIL POND	11/29/2010	279.5	<LLD	2.15E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
205 0.6 MI SSE - SPOIL POND	12/6/2010	275.5	<LLD	1.75E-02
205 0.6 MI SSE - SPOIL POND	12/13/2010	269.5	<LLD	2.41E-02
205 0.6 MI SSE - SPOIL POND	12/20/2010	268.2	<LLD	2.13E-02
205 0.6 MI SSE - SPOIL POND	12/27/2010	270.8	<LLD	2.17E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	1/4/2010	266.8	<LLD	2.14E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	1/11/2010	266.2	<LLD	1.82E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	1/18/2010	267.7	<LLD	2.06E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	1/25/2010	271.0	<LLD	2.40E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/1/2010	267.2	<LLD	1.68E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/8/2010	268.8	<LLD	1.66E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/15/2010	267.5	<LLD	2.05E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/22/2010	268.3	<LLD	1.59E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	3/1/2010	269.3	<LLD	2.19E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	3/8/2010	267.3	<LLD	2.00E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	3/15/2010	269.7	<LLD	1.74E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	3/22/2010	270.4	<LLD	2.16E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	3/29/2010	271.1	<LLD	2.20E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	4/5/2010	272.8	<LLD	1.92E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	4/12/2010	272.9	<LLD	1.30E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	4/19/2010	272.6	<LLD	1.64E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	4/26/2010	272.5	<LLD	2.22E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	5/3/2010	274.0	<LLD	1.63E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Air Cartridge

Quantity: cubic meters

Activity: pCi/cubic meter

Analysis: Iodine

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	5/10/2010	274.4	<LLD	2.40E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	5/17/2010	274.3	<LLD	1.70E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	5/24/2010	276.5	<LLD	1.37E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	5/31/2010	272.7	<LLD	2.41E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	6/7/2010	276.3	<LLD	1.68E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	6/14/2010	276.0	<LLD	2.66E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	6/21/2010	277.2	<LLD	2.30E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	6/28/2010	276.1	<LLD	1.95E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	7/5/2010	277.7	<LLD	2.10E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	7/12/2010	273.5	<LLD	2.59E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	7/19/2010	275.9	<LLD	1.71E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	7/26/2010	277.2	<LLD	2.03E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/2/2010	286.0	<LLD	1.83E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/9/2010	287.0	<LLD	2.35E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/16/2010	286.4	<LLD	1.95E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/23/2010	288.3	<LLD	1.63E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/30/2010	289.5	<LLD	2.42E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	9/6/2010	288.8	<LLD	1.34E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	9/13/2010	289.8	<LLD	2.08E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	9/20/2010	288.8	<LLD	1.93E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	9/27/2010	287.7	<LLD	2.57E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	10/4/2010	285.9	<LLD	2.19E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Air Cartridge*

*Quantity: cubic meters*

*Activity: pCi/cubic meter*

*Analysis: Iodine*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	10/11/2010	286.3	<LLD	2.15E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	10/18/2010	281.1	<LLD	1.43E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	10/25/2010	285.9	<LLD	1.98E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	11/1/2010	286.4	<LLD	2.04E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	11/8/2010	283.1	<LLD	1.70E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	11/15/2010	281.6	<LLD	2.31E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	11/22/2010	283.6	<LLD	2.32E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	11/29/2010	283.5	<LLD	1.54E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	12/6/2010	277.1	<LLD	2.14E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	12/13/2010	274.9	<LLD	2.05E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	12/20/2010	276.2	<LLD	2.11E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	12/27/2010	275.5	<LLD	2.27E-02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

*Media Type: Fish and Invertebrate*

*Quantity: Grams*

*Concentration (Activity): pCi/Gram*

*Analysis: Tritium*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Efficiency</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
706	NANCY'S CREEK - FREE SWIMMERS	1000		<LLD	7.94E-02
707	NANCY'S CREEK - BOTTOM FEEDERS	1000		<LLD	1.04E-01
708	NANCY'S CREEK - SH/BO*	1000		<LLD	9.75E-02



# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
402	WELL ESS-2C, 0.17 MILES W	1/12/2010	1	2.80E+05
402	WELL ESS-2C, 0.17 MILES W	2/4/2010	1	2.10E+05
402	WELL ESS-2C, 0.17 MILES W	3/11/2010	1	1.55E+05
402	WELL ESS-2C, 0.17 MILES W	4/6/2010	1	1.00E+05
402	WELL ESS-2C, 0.17 MILES W	5/6/2010	1	1.65E+05
402	WELL ESS-2C, 0.17 MILES W	6/8/2010	1	1.16E+05
402	WELL ESS-2C, 0.17 MILES W	7/12/2010	1	1.28E+05
402	WELL ESS-2C, 0.17 MILES W	8/9/2010	1	1.47E+05
402	WELL ESS-2C, 0.17 MILES W	9/22/2010	1	1.03E+05
402	WELL ESS-2C, 0.17 MILES W	10/27/2010	1	5.34E+04
402	WELL ESS-2C, 0.17 MILES W	11/10/2010	1	1.11E+05
402	WELL ESS-2C, 0.17 MILES W	12/13/2010	1	7.48E+04
403	WELL ESS-16, 0.16 MILES W	1/12/2010	1	3.25E+03
403	WELL ESS-16, 0.16 MILES W	2/8/2010	1	2.90E+03
403	WELL ESS-16, 0.16 MILES W	3/11/2010	1	2.07E+03
403	WELL ESS-16, 0.16 MILES W	4/6/2010	1	1.34E+03
403	WELL ESS-16, 0.16 MILES W	5/6/2010	1	1.15E+03
403	WELL ESS-16, 0.16 MILES W	6/8/2010	1	1.05E+03
403	WELL ESS-16, 0.16 MILES W	7/12/2010	1	1.42E+03
403	WELL ESS-16, 0.16 MILES W	8/9/2010	1	8.55E+02
403	WELL ESS-16, 0.16 MILES W	9/22/2010	1	1.43E+03
403	WELL ESS-16, 0.16 MILES W	10/27/2010	1	1.14E+03
403	WELL ESS-16, 0.16 MILES W	11/10/2010	1	1.26E+03
403	WELL ESS-16, 0.16 MILES W	12/14/2010	1	1.21E+03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>
404 WELL ESS-1B, 0.16 MILES SW	1/11/2010	1	<LLD	2.45E+02
404 WELL ESS-1B, 0.16 MILES SW	2/1/2010	1	<LLD	2.41E+02
404 WELL ESS-1B, 0.16 MILES SW	5/4/2010	1	<LLD	2.34E+02
404 WELL ESS-1B, 0.16 MILES SW	7/8/2010	1	<LLD	2.45E+02
404 WELL ESS-1B, 0.16 MILES SW	10/14/2010	1	<LLD	2.15E+02
404 WELL ESS-1B, 0.16 MILES SW	12/10/2010	1	<LLD	2.23E+02
405 WELL ESS-2B, 0.17 MILES W	1/12/2010	1	<LLD	2.29E+02
405 WELL ESS-2B, 0.17 MILES W	2/4/2010	1	<LLD	2.39E+02
405 WELL ESS-2B, 0.17 MILES W	5/6/2010	1	<LLD	2.31E+02
405 WELL ESS-2B, 0.17 MILES W	7/8/2010	1	<LLD	2.46E+02
405 WELL ESS-2B, 0.17 MILES W	10/14/2010	1	<LLD	2.22E+02
406 WELL ESS-3B, 0.08 MILES N	1/5/2010	1	2.80E+02	
406 WELL ESS-3B, 0.08 MILES N	2/1/2010	1	2.44E+02	
406 WELL ESS-3B, 0.08 MILES N	3/3/2010	1	3.47E+02	
406 WELL ESS-3B, 0.08 MILES N	4/2/2010	1	<LLD	2.47E+02
406 WELL ESS-3B, 0.08 MILES N	5/3/2010	1	<LLD	2.23E+02
406 WELL ESS-3B, 0.08 MILES N	6/7/2010	1	<LLD	2.17E+02
406 WELL ESS-3B, 0.08 MILES N	7/7/2010	1	<LLD	2.38E+02
406 WELL ESS-3B, 0.08 MILES N	10/14/2010	1	<LLD	2.29E+02
407 WELL ESS-13B, 0.06 MILES ENE	1/7/2010	1	3.08E+02	
407 WELL ESS-13B, 0.06 MILES ENE	2/1/2010	1	<LLD	2.38E+02
407 WELL ESS-13B, 0.06 MILES ENE	4/26/2010	1	<LLD	2.30E+02
407 WELL ESS-13B, 0.06 MILES ENE	7/20/2010	1	<LLD	2.32E+02
407 WELL ESS-13B, 0.06 MILES ENE	10/18/2010	1	<LLD	2.35E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>
407	WELL ESS-13B, 0.06 MILES ENE	12/10/2010	1	<LLD 2.31E+02
408	WELL ESS-13C, 0.06 MILES ENE	1/7/2010	1	<LLD 2.28E+02
408	WELL ESS-13C, 0.06 MILES ENE	2/1/2010	1	<LLD 2.40E+02
408	WELL ESS-13C, 0.06 MILES ENE	3/3/2010	1	<LLD 2.42E+02
408	WELL ESS-13C, 0.06 MILES ENE	4/2/2010	1	<LLD 2.50E+02
408	WELL ESS-13C, 0.06 MILES ENE	4/26/2010	1	<LLD 2.53E+02
408	WELL ESS-13C, 0.06 MILES ENE	6/7/2010	1	<LLD 2.14E+02
408	WELL ESS-13C, 0.06 MILES ENE	7/20/2010	1	<LLD 2.55E+02
408	WELL ESS-13C, 0.06 MILES ENE	10/18/2010	1	<LLD 2.41E+02
408	WELL ESS-13C, 0.06 MILES ENE	12/10/2010	1	<LLD 2.40E+02
409	WELL ESS-17A, 0.65 MILES NE	1/5/2010	1	<LLD 2.30E+02
409	WELL ESS-17A, 0.65 MILES NE	2/23/2010	1	<LLD 2.42E+02
409	WELL ESS-17A, 0.65 MILES NE	6/2/2010	1	<LLD 2.32E+02
409	WELL ESS-17A, 0.65 MILES NE	8/30/2010	1	<LLD 2.39E+02
409	WELL ESS-17A, 0.65 MILES NE	12/2/2010	1	<LLD 2.38E+02
410	WELL ESS-17B, 0.65 MILES NE	1/5/2010	1	<LLD 2.42E+02
410	WELL ESS-17B, 0.65 MILES NE	2/23/2010	1	<LLD 2.41E+02
410	WELL ESS-17B, 0.65 MILES NE	6/2/2010	1	<LLD 2.33E+02
410	WELL ESS-17B, 0.65 MILES NE	8/30/2010	1	<LLD 2.41E+02
410	WELL ESS-17B, 0.65 MILES NE	12/2/2010	1	<LLD 2.32E+02
411	WELL ESS-17C, 0.65 MILES NE	1/5/2010	1	5.75E+03
411	WELL ESS-17C, 0.65 MILES NE	2/23/2010	1	6.14E+03
411	WELL ESS-17C, 0.65 MILES NE	6/2/2010	1	5.83E+03
411	WELL ESS-17C, 0.65 MILES NE	8/30/2010	1	7.95E+03

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i>Sample Point</i>	<i>Sample Date</i>	<i>Quantity</i>	<i>Activity</i>	<i>LLD</i>	
411	WELL ESS-17C, 0.65 MILES NE	9/13/2010	1	6.04E+03	
411	WELL ESS-17C, 0.65 MILES NE	12/2/2010	1	9.66E+03	
412	WELL ESS-18B, NEAR (SDSP) STORM DRAIN STABILIZAT	1/7/2010	1	<LLD	2.30E+02
412	WELL ESS-18B, NEAR (SDSP) STORM DRAIN STABILIZAT	3/10/2010	1	<LLD	2.43E+02
412	WELL ESS-18B, NEAR (SDSP) STORM DRAIN STABILIZAT	6/9/2010	1	<LLD	2.86E+02
412	WELL ESS-18B, NEAR (SDSP) STORM DRAIN STABILIZAT	9/16/2010	1	<LLD	2.06E+02
412	WELL ESS-18B, NEAR (SDSP) STORM DRAIN STABILIZAT	12/6/2010	1	<LLD	2.29E+02
413	WELL ESS-18C, NEAR SDSP	1/7/2010	1	3.63E+05	
413	WELL ESS-18C, NEAR SDSP	3/10/2010	1	3.59E+05	
413	WELL ESS-18C, NEAR SDSP	6/9/2010	1	3.23E+05	
413	WELL ESS-18C, NEAR SDSP	8/16/2010	1	3.20E+05	
413	WELL ESS-18C, NEAR SDSP	9/16/2010	1	3.49E+05	
413	WELL ESS-18C, NEAR SDSP	10/25/2010	1	3.15E+05	
413	WELL ESS-18C, NEAR SDSP	11/4/2010	1	2.87E+05	
413	WELL ESS-18C, NEAR SDSP	12/6/2010	1	2.67E+05	
414	WELL ESS-19B, NEAR SDSP	1/4/2010	1	6.00E+04	
414	WELL ESS-19B, NEAR SDSP	2/4/2010	1	4.20E+04	
414	WELL ESS-19B, NEAR SDSP	3/3/2010	1	1.77E+04	
414	WELL ESS-19B, NEAR SDSP	4/12/2010	1	1.06E+04	
414	WELL ESS-19B, NEAR SDSP	4/27/2010	1	8.00E+03	
414	WELL ESS-19B, NEAR SDSP	5/7/2010	1	7.16E+03	
414	WELL ESS-19B, NEAR SDSP	6/3/2010	1	9.67E+03	
414	WELL ESS-19B, NEAR SDSP	7/8/2010	1	4.13E+03	
414	WELL ESS-19B, NEAR SDSP	8/3/2010	1	3.96E+03	

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>	
414	WELL ESS-19B, NEAR SDSP	9/16/2010	1	4.95E+03	
414	WELL ESS-19B, NEAR SDSP	10/25/2010	1	1.01E+04	
414	WELL ESS-19B, NEAR SDSP	11/8/2010	1	1.79E+04	
414	WELL ESS-19B, NEAR SDSP	12/9/2010	1	5.75E+03	
415	WELL ESS-19C, NEAR SDSP	1/4/2010	1	5.14E+05	
415	WELL ESS-19C, NEAR SDSP	2/4/2010	1	5.99E+05	
415	WELL ESS-19C, NEAR SDSP	3/3/2010	1	6.18E+05	
415	WELL ESS-19C, NEAR SDSP	4/12/2010	1	6.14E+05	
415	WELL ESS-19C, NEAR SDSP	4/27/2010	1	6.11E+05	
415	WELL ESS-19C, NEAR SDSP	5/7/2010	1	6.07E+05	
415	WELL ESS-19C, NEAR SDSP	6/3/2010	1	6.21E+05	
415	WELL ESS-19C, NEAR SDSP	7/8/2010	1	5.88E+05	
415	WELL ESS-19C, NEAR SDSP	8/3/2010	1	5.78E+05	
415	WELL ESS-19C, NEAR SDSP	9/16/2010	1	5.44E+05	
415	WELL ESS-19C, NEAR SDSP	10/25/2010	1	5.43E+05	
415	WELL ESS-19C, NEAR SDSP	11/8/2010	1	4.70E+05	
415	WELL ESS-19C, NEAR SDSP	12/9/2010	1	4.52E+05	
416	WELL ESS-20B, NEAR SDSP	1/4/2010	1	<LLD	2.37E+02
416	WELL ESS-20B, NEAR SDSP	4/1/2010	1	<LLD	2.53E+02
416	WELL ESS-20B, NEAR SDSP	6/3/2010	1	<LLD	2.77E+02
416	WELL ESS-20B, NEAR SDSP	9/16/2010	1	<LLD	2.20E+02
416	WELL ESS-20B, NEAR SDSP	12/9/2010	1	<LLD	2.35E+02
417	WELL ESS-20C, NEAR SDSP	1/4/2010	1	2.32E+04	
417	WELL ESS-20C, NEAR SDSP	3/4/2010	1	2.50E+04	

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>	
417	WELL ESS-20C, NEAR SDSP	4/1/2010	1	2.12E+04	
417	WELL ESS-20C, NEAR SDSP	6/3/2010	1	2.22E+04	
417	WELL ESS-20C, NEAR SDSP	8/16/2010	1	2.19E+04	
417	WELL ESS-20C, NEAR SDSP	9/16/2010	1	2.26E+04	
417	WELL ESS-20C, NEAR SDSP	10/26/2010	1	2.05E+04	
417	WELL ESS-20C, NEAR SDSP	11/8/2010	1	2.50E+04	
417	WELL ESS-20C, NEAR SDSP	12/9/2010	1	2.61E+04	
418	WELL ESS-21B, NEAR SDSP	1/8/2010	1	<LLD	2.20E+02
418	WELL ESS-21B, NEAR SDSP	4/1/2010	1	<LLD	2.54E+02
418	WELL ESS-21B, NEAR SDSP	7/1/2010	1	<LLD	2.34E+02
418	WELL ESS-21B, NEAR SDSP	10/13/2010	1	<LLD	2.19E+02
419	WELL ESS-21C, NEAR SDSP	1/8/2010	1	3.56E+02	
419	WELL ESS-21C, NEAR SDSP	4/1/2010	1	3.13E+02	
419	WELL ESS-21C, NEAR SDSP	7/1/2010	1	<LLD	2.47E+02
419	WELL ESS-21C, NEAR SDSP	10/13/2010	1	2.77E+02	
420	WELL ESS-22B, NEAR SDSP	1/5/2010	1	5.59E+02	
420	WELL ESS-22B, NEAR SDSP	1/19/2010	1	<LLD	2.40E+02
420	WELL ESS-22B, NEAR SDSP	4/2/2010	1	<LLD	2.30E+02
420	WELL ESS-22B, NEAR SDSP	7/1/2010	1	4.29E+02	
420	WELL ESS-22B, NEAR SDSP	10/14/2010	1	7.34E+02	
421	WELL ESS-22C, NEAR SDSP	1/5/2010	1	4.93E+05	
421	WELL ESS-22C, NEAR SDSP	4/2/2010	1	4.15E+05	
421	WELL ESS-22C, NEAR SDSP	7/6/2010	1	7.86E+05	
421	WELL ESS-22C, NEAR SDSP	8/16/2010	1	8.26E+05	

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>	
421	WELL ESS-22C, NEAR SDSP	9/20/2010	1	2.21E+05	
421	WELL ESS-22C, NEAR SDSP	10/14/2010	1	1.91E+05	
421	WELL ESS-22C, NEAR SDSP	11/4/2010	1	1.94E+05	
421	WELL ESS-22C, NEAR SDSP	12/8/2010	1	1.71E+05	
422	WELL ESS-23C, NEAR SDSP	1/7/2010	1	1.90E+05	
422	WELL ESS-23C, NEAR SDSP	3/5/2010	1	1.05E+05	
422	WELL ESS-23C, NEAR SDSP	6/4/2010	1	1.17E+05	
422	WELL ESS-23C, NEAR SDSP	9/14/2010	1	1.92E+05	
422	WELL ESS-23C, NEAR SDSP	12/2/2010	1	1.41E+05	
423	WELL ESS-24A, NEAR SDSP	1/5/2010	1	<LLD	2.43E+02
423	WELL ESS-24A, NEAR SDSP	1/19/2010	1	<LLD	2.40E+02
423	WELL ESS-24A, NEAR SDSP	4/1/2010	1	<LLD	2.44E+02
423	WELL ESS-24A, NEAR SDSP	7/1/2010	1	<LLD	2.44E+02
423	WELL ESS-24A, NEAR SDSP	10/13/2010	1	<LLD	2.30E+02
424	WELL ESS-24B, NEAR SDSP	4/1/2010	1	<LLD	2.45E+02
424	WELL ESS-24B, NEAR SDSP	4/29/2010	1	<LLD	2.36E+02
424	WELL ESS-24B, NEAR SDSP	7/1/2010	1	<LLD	2.46E+02
424	WELL ESS-24B, NEAR SDSP	10/13/2010	1	<LLD	2.32E+02
425	WELL ESS-24C, NEAR SDSP	1/5/2010	1	6.16E+03	
425	WELL ESS-24C, NEAR SDSP	4/1/2010	1	6.56E+03	
425	WELL ESS-24C, NEAR SDSP	7/1/2010	1	6.17E+03	
425	WELL ESS-24C, NEAR SDSP	10/13/2010	1	6.89E+03	
426	WELL ESS-25B, NEAR SDSP	1/6/2010	1	<LLD	2.29E+02
426	WELL ESS-25B, NEAR SDSP	3/9/2010	1	<LLD	2.42E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>	
426	WELL ESS-25B, NEAR SDSP	6/7/2010	1	<LLD	2.31E+02
426	WELL ESS-25B, NEAR SDSP	9/16/2010	1	<LLD	2.23E+02
426	WELL ESS-25B, NEAR SDSP	12/7/2010	1	<LLD	2.31E+02
427	WELL ESS-25C, NEAR SDSP	1/6/2010	1	<LLD	2.37E+02
427	WELL ESS-25C, NEAR SDSP	3/9/2010	1	<LLD	2.52E+02
427	WELL ESS-25C, NEAR SDSP	6/7/2010	1	<LLD	2.47E+02
427	WELL ESS-25C, NEAR SDSP	9/16/2010	1	<LLD	2.32E+02
427	WELL ESS-25C, NEAR SDSP	12/7/2010	1	<LLD	2.44E+02
428	WELL ESS-26C, NEAR SDSP	1/8/2010	1	1.14E+05	
428	WELL ESS-26C, NEAR SDSP	3/5/2010	1	7.31E+04	
428	WELL ESS-26C, NEAR SDSP	6/2/2010	1	1.70E+05	
428	WELL ESS-26C, NEAR SDSP	8/16/2010	1	2.42E+05	
428	WELL ESS-26C, NEAR SDSP	9/16/2010	1	2.97E+05	
428	WELL ESS-26C, NEAR SDSP	10/25/2010	1	1.81E+05	
428	WELL ESS-26C, NEAR SDSP	11/4/2010	1	1.57E+05	
428	WELL ESS-26C, NEAR SDSP	12/6/2010	1	1.96E+05	
429	WELL ESS-27A, NEAR SDSP	1/7/2010	1	<LLD	2.39E+02
429	WELL ESS-27A, NEAR SDSP	2/23/2010	1	<LLD	2.39E+02
429	WELL ESS-27A, NEAR SDSP	6/4/2010	1	<LLD	2.23E+02
429	WELL ESS-27A, NEAR SDSP	8/30/2010	1	<LLD	2.43E+02
429	WELL ESS-27A, NEAR SDSP	12/2/2010	1	<LLD	2.31E+02
430	WELL ESS-27C, NEAR SDSP	1/7/2010	1	2.72E+05	
430	WELL ESS-27C, NEAR SDSP	3/5/2010	1	2.72E+05	
430	WELL ESS-27C, NEAR SDSP	6/4/2010	1	2.81E+05	



# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>	
430	WELL ESS-27C, NEAR SDSP	9/14/2010	1	2.92E+05	
430	WELL ESS-27C, NEAR SDSP	12/6/2010	1	2.76E+05	
431	WELL ESS-30C, NEAR SDSP	1/8/2010	1	4.43E+03	
431	WELL ESS-30C, NEAR SDSP	4/2/2010	1	2.28E+03	
431	WELL ESS-30C, NEAR SDSP	7/6/2010	1	3.06E+03	
431	WELL ESS-30C, NEAR SDSP	8/16/2010	1	8.78E+04	
431	WELL ESS-30C, NEAR SDSP	9/20/2010	1	7.27E+04	
431	WELL ESS-30C, NEAR SDSP	10/25/2010	1	2.25E+04	
431	WELL ESS-30C, NEAR SDSP	11/4/2010	1	2.93E+03	
431	WELL ESS-30C, NEAR SDSP	12/8/2010	1	5.61E+03	
432	WELL ESS-31C, NEAR SDSP	1/7/2010	1	<LLD	2.39E+02
432	WELL ESS-31C, NEAR SDSP	7/6/2010	1	6.95E+02	
432	WELL ESS-31C, NEAR SDSP	8/16/2010	1	2.87E+03	
432	WELL ESS-31C, NEAR SDSP	9/20/2010	1	1.67E+03	
432	WELL ESS-31C, NEAR SDSP	10/21/2010	1	4.37E+02	
432	WELL ESS-31C, NEAR SDSP	11/4/2010	1	<LLD	2.42E+02
432	WELL ESS-31C, NEAR SDSP	12/8/2010	1	<LLD	2.32E+02
433	WELL MW-2, 0.02 MILES S	1/13/2010	1	<LLD	2.85E+02
433	WELL MW-2, 0.02 MILES S	4/8/2010	1	<LLD	2.58E+02
433	WELL MW-2, 0.02 MILES S	7/13/2010	1	<LLD	2.58E+02
433	WELL MW-2, 0.02 MILES S	10/18/2010	1	<LLD	2.34E+02
433	WELL MW-2, 0.02 MILES S	12/10/2010	1	<LLD	2.70E+02
434	WELL MW-3, 0.03 MILES S	1/13/2010	1	<LLD	2.40E+02
434	WELL MW-3, 0.03 MILES S	4/6/2010	1	<LLD	2.72E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>
434	WELL MW-3, 0.03 MILES S	7/13/2010	1	<LLD 2.47E+02
434	WELL MW-3, 0.03 MILES S	10/18/2010	1	<LLD 2.34E+02
434	WELL MW-3, 0.03 MILES S	12/10/2010	1	<LLD 2.54E+02
435	WELL ESS-NANCY CREEK-1, (NC-1)	1/14/2010	1	<LLD 2.44E+02
435	WELL ESS-NANCY CREEK-1, (NC-1)	3/15/2010	1	2.97E+02
435	WELL ESS-NANCY CREEK-1, (NC-1)	6/15/2010	1	<LLD 2.35E+02
435	WELL ESS-NANCY CREEK-1, (NC-1)	9/21/2010	1	<LLD 2.13E+02
435	WELL ESS-NANCY CREEK-1, (NC-1)	12/23/2010	1	6.62E+02
436	WELL ESS-NANCY CREEK-2, (NC-2)	1/14/2010	1	<LLD 2.42E+02
436	WELL ESS-NANCY CREEK-2, (NC-2)	3/15/2010	1	3.30E+02
436	WELL ESS-NANCY CREEK-2, (NC-2)	6/15/2010	1	<LLD 2.38E+02
436	WELL ESS-NANCY CREEK-2, (NC-2)	9/21/2010	1	<LLD 2.31E+02
436	WELL ESS-NANCY CREEK-2, (NC-2)	12/22/2010	1	4.16E+02
437	WELL ESS-NANCY CREEK-3, (NC-3)	1/14/2010	1	<LLD 2.41E+02
437	WELL ESS-NANCY CREEK-3, (NC-3)	3/15/2010	1	<LLD 2.39E+02
437	WELL ESS-NANCY CREEK-3, (NC-3)	6/15/2010	1	<LLD 2.42E+02
437	WELL ESS-NANCY CREEK-3, (NC-3)	9/21/2010	1	<LLD 2.33E+02
437	WELL ESS-NANCY CREEK-3, (NC-3)	12/22/2010	1	2.42E+02
438	WELL ESS-NANCY CREEK-4, (NC-4)	1/15/2010	1	2.64E+02
438	WELL ESS-NANCY CREEK-4, (NC-4)	3/15/2010	1	4.48E+02
438	WELL ESS-NANCY CREEK-4, (NC-4)	6/15/2010	1	<LLD 2.41E+02
438	WELL ESS-NANCY CREEK-4, (NC-4)	9/21/2010	1	<LLD 2.35E+02
438	WELL ESS-NANCY CREEK-4, (NC-4)	12/22/2010	1	3.31E+02
439	WELL ESS-NANCY CREEK-5, (NC-5)	1/14/2010	1	<LLD 2.41E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Ground Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>	
439	WELL ESS-NANCY CREEK-5, (NC-5)	3/15/2010	1	<LLD	2.38E+02
439	WELL ESS-NANCY CREEK-5, (NC-5)	6/15/2010	1	<LLD	2.41E+02
439	WELL ESS-NANCY CREEK-5, (NC-5)	9/21/2010	1	<LLD	2.36E+02
439	WELL ESS-NANCY CREEK-5, (NC-5)	12/22/2010	1	2.75E+02	
440	WELL ESS-GUM LOG BRANCH-1, (GLB-1)	1/14/2010	1	<LLD	2.36E+02
440	WELL ESS-GUM LOG BRANCH-1, (GLB-1)	3/15/2010	1	<LLD	2.38E+02
440	WELL ESS-GUM LOG BRANCH-1, (GLB-1)	3/23/2010	1	<LLD	2.45E+02
440	WELL ESS-GUM LOG BRANCH-1, (GLB-1)	6/15/2010	1	<LLD	2.34E+02
440	WELL ESS-GUM LOG BRANCH-1, (GLB-1)	9/21/2010	1	<LLD	2.40E+02
440	WELL ESS-GUM LOG BRANCH-1, (GLB-1)	12/22/2010	1	<LLD	2.29E+02
447	WELL ESS-28C, NEAR SDSP	1/7/2010	1	5.22E+02	
447	WELL ESS-28C, NEAR SDSP	2/23/2010	1	3.89E+02	
447	WELL ESS-28C, NEAR SDSP	6/4/2010	1	<LLD	2.32E+02
447	WELL ESS-28C, NEAR SDSP	9/14/2010	1	<LLD	2.26E+02
447	WELL ESS-28C, NEAR SDSP	12/2/2010	1	2.38E+02	

# ***BSEP Radiological Environmental Monitoring Hard-To-Detect Analysis Report***

*Media Type: Shoreline Sediment*

*Quantity: GRAMS*

*Concentration (Activity): pCi/gm*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Analysis</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	<b><i>LLD</i></b>
501 NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	SR-90	<LLD		2.00E+00
501 NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	SR-89	<LLD		2.00E+00
501 NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	FE-55	<LLD		2.00E+01

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>	
400	0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	0.005	<LLD	2.39E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	0.005	<LLD	2.36E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	0.005	<LLD	2.33E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	0.005	<LLD	2.32E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	0.005	<LLD	2.34E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	6/16/2010	0.005	<LLD	2.31E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2010	0.005	<LLD	2.24E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	0.005	<LLD	2.25E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	9/17/2010	0.005	<LLD	2.27E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	0.005	<LLD	2.27E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	0.005	<LLD	2.25E+02
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/17/2010	0.005	<LLD	2.27E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/16/2010	0.005	<LLD	2.40E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2010	0.005	<LLD	2.35E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2010	0.005	4.56E+02	2.33E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	0.005	3.71E+02	2.31E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	0.005	<LLD	2.35E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	0.005	<LLD	2.30E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	0.005	<LLD	2.24E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	0.005	<LLD	2.27E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	0.005	<LLD	2.27E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/18/2010	0.005	2.93E+02	2.26E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2010	0.005	2.50E+02	2.24E+02
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	0.005	3.11E+02	2.27E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
494	NANCY'S CREEK - WP-106	1	3.45E+02	
494	NANCY'S CREEK - WP-106	1	2.62E+02	
494	NANCY'S CREEK - WP-106	1	<LLD	2.38E+02
494	NANCY'S CREEK - WP-106	1	3.92E+02	
494	NANCY'S CREEK - WP-106	1	<LLD	2.45E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.37E+02
494	NANCY'S CREEK - WP-106	1	4.39E+02	
494	NANCY'S CREEK - WP-106	1	5.06E+02	
494	NANCY'S CREEK - WP-106	1	3.51E+02	
494	NANCY'S CREEK - WP-106	1	3.46E+02	
494	NANCY'S CREEK - WP-106	1	<LLD	2.45E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.53E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.40E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.49E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.10E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.43E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.42E+02
494	NANCY'S CREEK - WP-106	1	3.65E+02	
494	NANCY'S CREEK - WP-106	1	<LLD	2.23E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.46E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.45E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.43E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.44E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.30E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
494	NANCY'S CREEK - WP-106	1	2.39E+02	
494	NANCY'S CREEK - WP-106	1	<LLD	2.38E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.38E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.36E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.20E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.49E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.36E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.26E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.35E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.42E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.47E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.26E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.36E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.29E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.19E+02
494	NANCY'S CREEK - WP-106	1	3.98E+02	
494	NANCY'S CREEK - WP-106	1	<LLD	2.33E+02
494	NANCY'S CREEK - WP-106	1	3.11E+02	
494	NANCY'S CREEK - WP-106	1	2.40E+02	
494	NANCY'S CREEK - WP-106	1	2.73E+02	
494	NANCY'S CREEK - WP-106	1	<LLD	2.33E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.53E+02
494	NANCY'S CREEK - WP-106	1	<LLD	2.31E+02
494	NANCY'S CREEK - WP-106	1	2.79E+02	

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
495 NANCY'S CREEK - WP-52	1/6/2010	1	<LLD	2.39E+02
495 NANCY'S CREEK - WP-52	1/13/2010	1	<LLD	2.41E+02
495 NANCY'S CREEK - WP-52	1/19/2010	1	<LLD	2.32E+02
495 NANCY'S CREEK - WP-52	1/27/2010	1	3.79E+02	
495 NANCY'S CREEK - WP-52	2/3/2010	1	<LLD	2.41E+02
495 NANCY'S CREEK - WP-52	2/10/2010	1	2.45E+02	
495 NANCY'S CREEK - WP-52	2/16/2010	1	<LLD	2.32E+02
495 NANCY'S CREEK - WP-52	2/23/2010	1	<LLD	2.36E+02
495 NANCY'S CREEK - WP-52	3/1/2010	1	<LLD	2.38E+02
495 NANCY'S CREEK - WP-52	3/8/2010	1	<LLD	2.43E+02
495 NANCY'S CREEK - WP-52	3/16/2010	1	<LLD	2.52E+02
495 NANCY'S CREEK - WP-52	3/23/2010	1	<LLD	2.55E+02
495 NANCY'S CREEK - WP-52	3/31/2010	1	<LLD	2.22E+02
495 NANCY'S CREEK - WP-52	4/5/2010	1	<LLD	2.57E+02
495 NANCY'S CREEK - WP-52	4/13/2010	1	<LLD	2.16E+02
495 NANCY'S CREEK - WP-52	4/21/2010	1	<LLD	2.37E+02
495 NANCY'S CREEK - WP-52	4/27/2010	1	<LLD	2.33E+02
495 NANCY'S CREEK - WP-52	5/5/2010	1	<LLD	2.21E+02
495 NANCY'S CREEK - WP-52	5/12/2010	1	<LLD	2.19E+02
495 NANCY'S CREEK - WP-52	5/19/2010	1	<LLD	2.14E+02
495 NANCY'S CREEK - WP-52	5/26/2010	1	<LLD	2.29E+02
495 NANCY'S CREEK - WP-52	6/2/2010	1	<LLD	2.56E+02
495 NANCY'S CREEK - WP-52	6/9/2010	1	<LLD	2.19E+02
495 NANCY'S CREEK - WP-52	6/16/2010	1	<LLD	2.21E+02



# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>	
495	NANCY'S CREEK - WP-52	6/21/2010	1	<LLD	2.39E+02
495	NANCY'S CREEK - WP-52	6/29/2010	1	<LLD	2.31E+02
495	NANCY'S CREEK - WP-52	7/6/2010	1	<LLD	2.24E+02
495	NANCY'S CREEK - WP-52	7/13/2010	1	<LLD	2.26E+02
495	NANCY'S CREEK - WP-52	7/19/2010	1	<LLD	2.21E+02
495	NANCY'S CREEK - WP-52	7/27/2010	1	<LLD	2.17E+02
495	NANCY'S CREEK - WP-52	8/3/2010	1	<LLD	2.16E+02
495	NANCY'S CREEK - WP-52	8/10/2010	1	<LLD	2.12E+02
495	NANCY'S CREEK - WP-52	8/17/2010	1	<LLD	2.24E+02
495	NANCY'S CREEK - WP-52	8/24/2010	1	<LLD	2.25E+02
495	NANCY'S CREEK - WP-52	8/30/2010	1	<LLD	2.64E+02
495	NANCY'S CREEK - WP-52	9/7/2010	1	<LLD	2.21E+02
495	NANCY'S CREEK - WP-52	9/14/2010	1	<LLD	2.22E+02
495	NANCY'S CREEK - WP-52	9/21/2010	1	<LLD	2.29E+02
495	NANCY'S CREEK - WP-52	9/28/2010	1	<LLD	2.19E+02
495	NANCY'S CREEK - WP-52	10/5/2010	1	<LLD	2.47E+02
495	NANCY'S CREEK - WP-52	10/12/2010	1	<LLD	2.18E+02
495	NANCY'S CREEK - WP-52	10/20/2010	1	<LLD	2.12E+02
495	NANCY'S CREEK - WP-52	10/26/2010	1	<LLD	2.11E+02
495	NANCY'S CREEK - WP-52	11/2/2010	1	<LLD	2.13E+02
495	NANCY'S CREEK - WP-52	11/9/2010	1	<LLD	2.20E+02
495	NANCY'S CREEK - WP-52	11/15/2010	1	<LLD	2.35E+02
495	NANCY'S CREEK - WP-52	11/23/2010	1	<LLD	2.34E+02
495	NANCY'S CREEK - WP-52	11/29/2010	1	<LLD	2.44E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>	
495	NANCY'S CREEK - WP-52	12/7/2010	1	<LLD	2.31E+02
495	NANCY'S CREEK - WP-52	12/16/2010	1	<LLD	2.30E+02
495	NANCY'S CREEK - WP-52	12/21/2010	1	<LLD	2.25E+02
495	NANCY'S CREEK - WP-52	12/28/2010	1	<LLD	2.28E+02
496	NANCY'S CREEK - WP-53	1/6/2010	1	4.23E+02	
496	NANCY'S CREEK - WP-53	1/13/2010	1	3.94E+02	
496	NANCY'S CREEK - WP-53	1/19/2010	1	2.64E+02	
496	NANCY'S CREEK - WP-53	1/27/2010	1	<LLD	2.42E+02
496	NANCY'S CREEK - WP-53	2/3/2010	1	<LLD	2.43E+02
496	NANCY'S CREEK - WP-53	2/10/2010	1	<LLD	2.32E+02
496	NANCY'S CREEK - WP-53	2/16/2010	1	<LLD	2.30E+02
496	NANCY'S CREEK - WP-53	2/23/2010	1	<LLD	2.35E+02
496	NANCY'S CREEK - WP-53	3/1/2010	1	<LLD	2.36E+02
496	NANCY'S CREEK - WP-53	3/8/2010	1	<LLD	2.43E+02
496	NANCY'S CREEK - WP-53	3/16/2010	1	<LLD	2.46E+02
496	NANCY'S CREEK - WP-53	3/23/2010	1	<LLD	2.57E+02
496	NANCY'S CREEK - WP-53	3/31/2010	1	<LLD	2.32E+02
496	NANCY'S CREEK - WP-53	4/5/2010	1	<LLD	2.56E+02
496	NANCY'S CREEK - WP-53	4/13/2010	1	<LLD	2.20E+02
496	NANCY'S CREEK - WP-53	4/21/2010	1	<LLD	2.50E+02
496	NANCY'S CREEK - WP-53	4/27/2010	1	<LLD	2.41E+02
496	NANCY'S CREEK - WP-53	5/5/2010	1	<LLD	2.24E+02
496	NANCY'S CREEK - WP-53	5/12/2010	1	<LLD	2.23E+02
496	NANCY'S CREEK - WP-53	5/19/2010	1	<LLD	2.21E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
496 NANCY'S CREEK - WP-53	5/26/2010	1	<LLD	2.22E+02
496 NANCY'S CREEK - WP-53	6/2/2010	1	<LLD	2.54E+02
496 NANCY'S CREEK - WP-53	6/9/2010	1	<LLD	2.18E+02
496 NANCY'S CREEK - WP-53	6/16/2010	1	<LLD	2.28E+02
496 NANCY'S CREEK - WP-53	6/21/2010	1	<LLD	2.43E+02
496 NANCY'S CREEK - WP-53	6/29/2010	1	<LLD	2.28E+02
496 NANCY'S CREEK - WP-53	7/6/2010	1	<LLD	2.25E+02
496 NANCY'S CREEK - WP-53	7/13/2010	1	<LLD	2.25E+02
496 NANCY'S CREEK - WP-53	7/19/2010	1	<LLD	2.28E+02
496 NANCY'S CREEK - WP-53	7/27/2010	1	<LLD	2.18E+02
496 NANCY'S CREEK - WP-53	8/3/2010	1	<LLD	2.20E+02
496 NANCY'S CREEK - WP-53	8/10/2010	1	<LLD	2.12E+02
496 NANCY'S CREEK - WP-53	8/17/2010	1	<LLD	2.25E+02
496 NANCY'S CREEK - WP-53	8/24/2010	1	<LLD	2.25E+02
496 NANCY'S CREEK - WP-53	8/30/2010	1	<LLD	2.60E+02
496 NANCY'S CREEK - WP-53	9/7/2010	1	<LLD	2.25E+02
496 NANCY'S CREEK - WP-53	9/14/2010	1	<LLD	2.23E+02
496 NANCY'S CREEK - WP-53	9/21/2010	1	<LLD	2.30E+02
496 NANCY'S CREEK - WP-53	9/28/2010	1	<LLD	2.24E+02
496 NANCY'S CREEK - WP-53	10/5/2010	1	<LLD	2.46E+02
496 NANCY'S CREEK - WP-53	10/12/2010	1	<LLD	2.19E+02
496 NANCY'S CREEK - WP-53	10/20/2010	1	<LLD	2.14E+02
496 NANCY'S CREEK - WP-53	10/26/2010	1	<LLD	2.17E+02
496 NANCY'S CREEK - WP-53	11/2/2010	1	<LLD	2.19E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
496	NANCY'S CREEK - WP-53	1	<LLD	2.23E+02
496	NANCY'S CREEK - WP-53	1	<LLD	2.37E+02
496	NANCY'S CREEK - WP-53	1	<LLD	2.33E+02
496	NANCY'S CREEK - WP-53	1	<LLD	2.45E+02
496	NANCY'S CREEK - WP-53	1	<LLD	2.29E+02
496	NANCY'S CREEK - WP-53	1	2.51E+02	
496	NANCY'S CREEK - WP-53	1	<LLD	2.57E+02
496	NANCY'S CREEK - WP-53	1	<LLD	2.46E+02
497	NANCY'S CREEK - WP-55	1	3.97E+02	
497	NANCY'S CREEK - WP-55	1	4.31E+02	
497	NANCY'S CREEK - WP-55	1	<LLD	2.31E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.41E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.44E+02
497	NANCY'S CREEK - WP-55	1	2.64E+02	
497	NANCY'S CREEK - WP-55	1	<LLD	2.30E+02
497	NANCY'S CREEK - WP-55	1	3.25E+02	
497	NANCY'S CREEK - WP-55	1	<LLD	2.40E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.44E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.44E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.57E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.36E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.56E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.27E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.52E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>	
497	NANCY'S CREEK - WP-55	4/27/2010	1	<LLD	2.36E+02
497	NANCY'S CREEK - WP-55	5/5/2010	1	<LLD	2.29E+02
497	NANCY'S CREEK - WP-55	5/12/2010	1	<LLD	2.29E+02
497	NANCY'S CREEK - WP-55	5/19/2010	1	<LLD	2.28E+02
497	NANCY'S CREEK - WP-55	5/26/2010	1	<LLD	2.34E+02
497	NANCY'S CREEK - WP-55	6/2/2010	1	<LLD	2.54E+02
497	NANCY'S CREEK - WP-55	6/9/2010	1	<LLD	2.24E+02
497	NANCY'S CREEK - WP-55	6/16/2010	1	<LLD	2.26E+02
497	NANCY'S CREEK - WP-55	6/21/2010	1	<LLD	2.42E+02
497	NANCY'S CREEK - WP-55	6/29/2010	1	<LLD	2.34E+02
497	NANCY'S CREEK - WP-55	7/6/2010	1	<LLD	2.28E+02
497	NANCY'S CREEK - WP-55	7/13/2010	1	<LLD	2.32E+02
497	NANCY'S CREEK - WP-55	7/19/2010	1	<LLD	2.16E+02
497	NANCY'S CREEK - WP-55	7/27/2010	1	<LLD	2.26E+02
497	NANCY'S CREEK - WP-55	8/3/2010	1	<LLD	2.34E+02
497	NANCY'S CREEK - WP-55	8/10/2010	1	<LLD	2.33E+02
497	NANCY'S CREEK - WP-55	8/17/2010	1	<LLD	2.20E+02
497	NANCY'S CREEK - WP-55	8/24/2010	1	<LLD	2.30E+02
497	NANCY'S CREEK - WP-55	8/30/2010	1	<LLD	2.51E+02
497	NANCY'S CREEK - WP-55	9/7/2010	1	<LLD	2.33E+02
497	NANCY'S CREEK - WP-55	9/14/2010	1	<LLD	2.33E+02
497	NANCY'S CREEK - WP-55	9/21/2010	1	<LLD	2.35E+02
497	NANCY'S CREEK - WP-55	9/28/2010	1	<LLD	2.27E+02
497	NANCY'S CREEK - WP-55	10/5/2010	1	<LLD	2.44E+02

# BSEP Radiological Environmental Monitoring Analysis Report

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i>Sample Point</i>	<i>Sample Date</i>	<i>Quantity</i>	<i>Activity</i>	<i>LLD</i>
497	NANCY'S CREEK - WP-55	1	<LLD	2.29E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.23E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.24E+02
497	NANCY'S CREEK - WP-55	1	2.32E+02	
497	NANCY'S CREEK - WP-55	1	<LLD	2.26E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.38E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.33E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.35E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.29E+02
497	NANCY'S CREEK - WP-55	1	3.18E+02	
497	NANCY'S CREEK - WP-55	1	<LLD	2.58E+02
497	NANCY'S CREEK - WP-55	1	<LLD	2.47E+02
498	NANCY'S CREEK - WP-57	1	3.64E+02	
498	NANCY'S CREEK - WP-57	1	3.86E+02	
498	NANCY'S CREEK - WP-57	1	<LLD	2.30E+02
498	NANCY'S CREEK - WP-57	1	<LLD	2.43E+02
498	NANCY'S CREEK - WP-57	1	<LLD	2.45E+02
498	NANCY'S CREEK - WP-57	1	<LLD	2.35E+02
498	NANCY'S CREEK - WP-57	1	2.57E+02	
498	NANCY'S CREEK - WP-57	1	2.60E+02	
498	NANCY'S CREEK - WP-57	1	<LLD	2.36E+02
498	NANCY'S CREEK - WP-57	1	<LLD	2.43E+02
498	NANCY'S CREEK - WP-57	1	<LLD	2.22E+02
498	NANCY'S CREEK - WP-57	1	<LLD	2.46E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
498	NANCY'S CREEK - WP-57	3/31/2010	1	<LLD 2.28E+02
498	NANCY'S CREEK - WP-57	4/5/2010	1	<LLD 2.55E+02
498	NANCY'S CREEK - WP-57	4/13/2010	1	<LLD 2.40E+02
498	NANCY'S CREEK - WP-57	4/21/2010	1	<LLD 2.52E+02
498	NANCY'S CREEK - WP-57	4/27/2010	1	<LLD 2.44E+02
498	NANCY'S CREEK - WP-57	5/5/2010	1	<LLD 2.31E+02
498	NANCY'S CREEK - WP-57	5/12/2010	1	<LLD 2.37E+02
498	NANCY'S CREEK - WP-57	5/19/2010	1	<LLD 2.20E+02
498	NANCY'S CREEK - WP-57	5/26/2010	1	<LLD 2.38E+02
498	NANCY'S CREEK - WP-57	6/2/2010	1	2.56E+02
498	NANCY'S CREEK - WP-57	6/9/2010	1	2.34E+02
498	NANCY'S CREEK - WP-57	6/16/2010	1	<LLD 2.31E+02
498	NANCY'S CREEK - WP-57	6/21/2010	1	<LLD 2.33E+02
498	NANCY'S CREEK - WP-57	6/29/2010	1	<LLD 2.40E+02
498	NANCY'S CREEK - WP-57	7/6/2010	1	<LLD 2.29E+02
498	NANCY'S CREEK - WP-57	7/13/2010	1	<LLD 2.35E+02
498	NANCY'S CREEK - WP-57	7/19/2010	1	<LLD 2.30E+02
498	NANCY'S CREEK - WP-57	7/27/2010	1	<LLD 2.30E+02
498	NANCY'S CREEK - WP-57	8/3/2010	1	<LLD 2.36E+02
498	NANCY'S CREEK - WP-57	8/10/2010	1	<LLD 2.37E+02
498	NANCY'S CREEK - WP-57	8/17/2010	1	<LLD 2.28E+02
498	NANCY'S CREEK - WP-57	8/24/2010	1	<LLD 2.33E+02
498	NANCY'S CREEK - WP-57	8/30/2010	1	<LLD 2.54E+02
498	NANCY'S CREEK - WP-57	9/7/2010	1	<LLD 2.35E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>
498	NANCY'S CREEK - WP-57	9/14/2010	1	<LLD 2.38E+02
498	NANCY'S CREEK - WP-57	9/21/2010	1	<LLD 2.36E+02
498	NANCY'S CREEK - WP-57	9/28/2010	1	<LLD 2.24E+02
498	NANCY'S CREEK - WP-57	10/5/2010	1	<LLD 2.44E+02
498	NANCY'S CREEK - WP-57	10/12/2010	1	<LLD 2.31E+02
498	NANCY'S CREEK - WP-57	10/20/2010	1	<LLD 2.25E+02
498	NANCY'S CREEK - WP-57	10/26/2010	1	<LLD 2.26E+02
498	NANCY'S CREEK - WP-57	11/2/2010	1	<LLD 2.22E+02
498	NANCY'S CREEK - WP-57	11/9/2010	1	<LLD 2.25E+02
498	NANCY'S CREEK - WP-57	11/15/2010	1	<LLD 2.39E+02
498	NANCY'S CREEK - WP-57	11/23/2010	1	<LLD 2.35E+02
498	NANCY'S CREEK - WP-57	11/29/2010	1	2.94E+02
498	NANCY'S CREEK - WP-57	12/7/2010	1	<LLD 2.31E+02
498	NANCY'S CREEK - WP-57	12/16/2010	1	2.53E+02
498	NANCY'S CREEK - WP-57	12/21/2010	1	<LLD 2.20E+02
498	NANCY'S CREEK - WP-57	12/28/2010	1	<LLD 2.47E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	1/6/2010	1	<LLD 2.28E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	1/13/2010	1	<LLD 2.37E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	1/19/2010	1	<LLD 2.32E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	1/27/2010	1	<LLD 2.32E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	2/3/2010	1	<LLD 2.37E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	2/10/2010	1	<LLD 2.34E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	2/16/2010	1	<LLD 2.41E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	2/23/2010	1	<LLD 2.42E+02



# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Activity</b></i>	<i><b>LLD</b></i>	
499	CAPE FEAR RIVER - WP-61 - CONTROL	3/1/2010	1	<LLD	2.39E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	3/8/2010	1	<LLD	2.35E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	3/16/2010	1	<LLD	2.47E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	3/24/2010	1	<LLD	2.48E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	3/31/2010	1	<LLD	2.44E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	4/5/2010	1	<LLD	2.49E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	4/13/2010	1	<LLD	2.40E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	4/21/2010	1	<LLD	2.58E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	4/27/2010	1	<LLD	2.49E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	5/5/2010	1	<LLD	2.37E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	5/12/2010	1	<LLD	2.26E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	5/19/2010	1	<LLD	2.36E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	5/26/2010	1	<LLD	2.29E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	6/2/2010	1	<LLD	2.52E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	6/9/2010	1	<LLD	2.34E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	6/16/2010	1	<LLD	2.34E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	6/21/2010	1	<LLD	2.38E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	6/29/2010	1	<LLD	2.20E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	7/6/2010	1	<LLD	2.41E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	7/13/2010	1	<LLD	2.38E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	7/19/2010	1	<LLD	2.34E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	7/27/2010	1	<LLD	2.30E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	8/3/2010	1	<LLD	2.42E+02
499	CAPE FEAR RIVER - WP-61 - CONTROL	8/10/2010	1	<LLD	2.17E+02

# ***BSEP Radiological Environmental Monitoring Analysis Report***

Media Type: Surface Water

Quantity: Liters

Concentration (Activity): pCi/Liter

Analysis: Tritium

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Activity</i></b>	<b><i>LLD</i></b>
499 CAPE FEAR RIVER - WP-61 - CONTROL	8/17/2010	1	<LLD	2.34E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	8/24/2010	1	<LLD	2.39E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	8/30/2010	1	<LLD	2.57E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	9/7/2010	1	<LLD	2.34E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	9/14/2010	1	<LLD	2.40E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	9/21/2010	1	<LLD	2.40E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	9/28/2010	1	<LLD	2.36E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	10/5/2010	1	<LLD	2.39E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	10/12/2010	1	<LLD	2.17E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	10/20/2010	1	<LLD	2.30E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	10/26/2010	1	<LLD	2.08E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	11/2/2010	1	<LLD	2.32E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	11/9/2010	1	<LLD	2.10E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	11/15/2010	1	<LLD	2.30E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	11/23/2010	1	<LLD	2.32E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	11/29/2010	1	<LLD	2.34E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	12/7/2010	1	<LLD	2.31E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	12/16/2010	1	<LLD	2.37E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	12/21/2010	1	<LLD	2.38E+02
499 CAPE FEAR RIVER - WP-61 - CONTROL	12/28/2010	1	<LLD	2.26E+02

# 2010 BSEP

## Radiological Environmental Monitoring

### Gamma Isotopic Report

#### Comments

- All Quarterly AP samples were available during 2010.
- Aquatic organism monitoring includes fish (free swimmers and bottom feeders), invertebrates (shellfish – (SH)), and Benthic organisms (BO). Invertebrates in the Gamma Isotopic data are represented by SH/BO\*.
- Gamma results are Less than LLD (< LLD) and do not appear in the Gamma Isotopic Report for the following samples:
  - Fish and Invertebrate samples (706 – 708)
  - Ground Water samples (402 – 440 and 447)
  - Surface Water samples (494 – 499)

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Air Particulate*

*Quantity: CUBIC METERS*

*Concentration (Activity): pCi/cubic meter*

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	3610.9	TL-208	1.04E-03	5.49E-04
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	3610.9	RA-226	1.08E-02	8.55E-03
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	3610.9	PB-214	8.30E-03	1.54E-03
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	3610.9	PB-212	2.05E-03	5.97E-04
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	3610.9	TH-234	1.17E-02	1.16E-02
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	3610.9	K-40	2.55E-02	9.40E-03
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	3610.9	BE-7	1.12E-01	1.77E-02
200	1.0 MI WSW - VISITORS CENTER	2/15/2010	3610.9	BI-214	8.23E-03	1.75E-03
200	1.0 MI WSW - VISITORS CENTER	5/17/2010	3716.1	BE-7	1.33E-01	3.05E-02
200	1.0 MI WSW - VISITORS CENTER	5/17/2010	3716.1	K-40	3.01E-02	1.68E-02
200	1.0 MI WSW - VISITORS CENTER	8/16/2010	3731.7	BE-7	1.43E-01	3.00E-02
200	1.0 MI WSW - VISITORS CENTER	8/16/2010	3731.7	K-40	8.28E-02	2.51E-02
200	1.0 MI WSW - VISITORS CENTER	11/15/2010	3592.5	BE-7	1.21E-01	3.20E-02
200	1.0 MI WSW - VISITORS CENTER	11/15/2010	3592.5	K-40	3.33E-02	1.99E-02
201	0.5 MI NE - PMAC	2/15/2010	3454.5	K-40	6.60E-02	1.43E-02
201	0.5 MI NE - PMAC	2/15/2010	3454.5	TL-208	1.14E-03	6.15E-04
201	0.5 MI NE - PMAC	2/15/2010	3454.5	PB-212	2.28E-03	8.72E-04
201	0.5 MI NE - PMAC	2/15/2010	3454.5	BI-214	7.02E-03	1.86E-03
201	0.5 MI NE - PMAC	2/15/2010	3454.5	PB-214	6.17E-03	1.69E-03
201	0.5 MI NE - PMAC	2/15/2010	3454.5	RA-226	2.10E-02	1.40E-02
201	0.5 MI NE - PMAC	2/15/2010	3454.5	TH-234	2.09E-02	1.09E-02
201	0.5 MI NE - PMAC	2/15/2010	3454.5	BE-7	1.21E-01	1.63E-02
201	0.5 MI NE - PMAC	5/17/2010	3565.2	BE-7	1.60E-01	3.90E-02
201	0.5 MI NE - PMAC	5/17/2010	3565.2	RA-226	3.67E-02	1.56E-02

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Air Particulate*

*Quantity: CUBIC METERS*

*Concentration (Activity): pCi/cubic meter*

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
201	0.5 MI NE - PMAC	8/16/2010	3651.2	BE-7	1.34E-01	3.21E-02
201	0.5 MI NE - PMAC	8/16/2010	3651.2	K-40	3.53E-02	1.84E-02
201	0.5 MI NE - PMAC	8/16/2010	3651.2	PB-212	1.97E-03	1.50E-03
201	0.5 MI NE - PMAC	8/16/2010	3651.2	PB-214	4.88E-03	2.38E-03
201	0.5 MI NE - PMAC	11/15/2010	3495.8	BE-7	1.24E-01	3.25E-02
201	0.5 MI NE - PMAC	11/15/2010	3495.8	K-40	7.31E-02	2.42E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	3744.8	RA-226	1.14E-02	9.07E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	3744.8	PB-212	2.45E-03	7.33E-04
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	3744.8	TL-208	9.32E-04	5.86E-04
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	3744.8	BI-214	6.71E-03	1.59E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	3744.8	K-40	6.50E-02	1.14E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	3744.8	BE-7	1.18E-01	1.76E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	3744.8	PB-214	4.61E-03	1.66E-03
202	1.0 MI S - SUBSTATION ON CONSTRN RD	2/15/2010	3744.8	TH-234	9.05E-03	1.09E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	5/17/2010	3816.4	RA-226	4.61E-02	1.78E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	5/17/2010	3816.4	BE-7	1.35E-01	2.97E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	8/16/2010	3748	BE-7	1.24E-01	3.53E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	8/16/2010	3748	K-40	9.18E-02	2.91E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	11/15/2010	3609.9	BE-7	9.80E-02	2.79E-02
202	1.0 MI S - SUBSTATION ON CONSTRN RD	11/15/2010	3609.9	K-40	3.46E-02	2.37E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/15/2010	3608.7	BE-7	1.22E-01	1.89E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/15/2010	3608.7	K-40	8.18E-02	1.35E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/15/2010	3608.7	TL-208	9.75E-04	6.64E-04
203	2.0 MI SSW - SOUTHPORT SUBSTATION	2/15/2010	3608.7	PB-212	2.14E-03	8.87E-04

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

Media Type: Air Particulate

Quantity: CUBIC METERS

Concentration (Activity): pCi/cubic meter

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/17/2010	3734.2	PB-212	1.19E-03	9.68E-04
203	2.0 MI SSW - SOUTHPORT SUBSTATION	5/17/2010	3734.2	BE-7	1.57E-01	3.43E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/16/2010	3759.4	RA-226	2.40E-02	1.75E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/16/2010	3759.4	BI-214	3.53E-03	2.64E-03
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/16/2010	3759.4	K-40	7.91E-02	2.43E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	8/16/2010	3759.4	BE-7	1.46E-01	2.86E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/15/2010	3609.2	BE-7	1.31E-01	2.99E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/15/2010	3609.2	K-40	5.44E-02	2.48E-02
203	2.0 MI SSW - SOUTHPORT SUBSTATION	11/15/2010	3609.2	RA-226	2.55E-02	1.86E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/15/2010	3540.7	PB-214	5.03E-03	1.51E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/15/2010	3540.7	K-40	4.77E-02	9.81E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/15/2010	3540.7	BI-214	3.88E-03	1.43E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/15/2010	3540.7	RA-226	2.59E-02	1.25E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/15/2010	3540.7	BE-7	1.25E-01	1.75E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	2/15/2010	3540.7	PB-212	1.38E-03	7.02E-04
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/17/2010	3636.6	PB-214	2.58E-02	4.61E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/17/2010	3636.6	BI-214	1.73E-02	4.26E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/17/2010	3636.6	K-40	5.07E-02	2.28E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	5/17/2010	3636.6	BE-7	1.58E-01	3.15E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/16/2010	3689.5	RA-226	1.63E-02	1.57E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/16/2010	3689.5	PB-214	5.13E-03	2.22E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	8/16/2010	3689.5	BE-7	1.65E-01	3.40E-02
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/15/2010	3529.9	PB-214	4.59E-03	2.63E-03
204	22.4 MI NNE - SUTTON PLANT (CONTROL)	11/15/2010	3529.9	BE-7	1.10E-01	2.78E-02

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Air Particulate*

*Quantity: CUBIC METERS*

*Concentration (Activity): pCi/cubic meter*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/15/2010	3529.9	K-40	4.97E-02	1.94E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/15/2010	3529.9	BI-214	4.93E-03	2.23E-03
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/15/2010	3529.9	RA-226	3.09E-02	1.85E-02
204 22.4 MI NNE - SUTTON PLANT (CONTROL)	11/15/2010	3529.9	PB-212	1.53E-03	1.15E-03
205 0.6 MI SSE - SPOIL POND	2/15/2010	3517.4	TH-234	1.02E-02	1.02E-02
205 0.6 MI SSE - SPOIL POND	2/15/2010	3517.4	RA-226	1.62E-02	1.01E-02
205 0.6 MI SSE - SPOIL POND	2/15/2010	3517.4	PB-214	4.97E-03	1.36E-03
205 0.6 MI SSE - SPOIL POND	2/15/2010	3517.4	BI-214	3.33E-03	1.21E-03
205 0.6 MI SSE - SPOIL POND	2/15/2010	3517.4	PB-212	1.48E-03	6.35E-04
205 0.6 MI SSE - SPOIL POND	2/15/2010	3517.4	K-40	3.73E-02	9.74E-03
205 0.6 MI SSE - SPOIL POND	2/15/2010	3517.4	BE-7	1.16E-01	1.79E-02
205 0.6 MI SSE - SPOIL POND	5/17/2010	3597.6	BE-7	1.12E-01	2.82E-02
205 0.6 MI SSE - SPOIL POND	5/17/2010	3597.6	PB-214	4.18E-03	2.24E-03
205 0.6 MI SSE - SPOIL POND	8/16/2010	3721.6	K-40	7.40E-02	2.37E-02
205 0.6 MI SSE - SPOIL POND	8/16/2010	3721.6	BE-7	1.42E-01	3.13E-02
205 0.6 MI SSE - SPOIL POND	11/15/2010	3614.7	K-40	9.63E-02	3.04E-02
205 0.6 MI SSE - SPOIL POND	11/15/2010	3614.7	BE-7	1.07E-01	3.34E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/15/2010	3491.3	PB-214	2.21E-03	1.19E-03
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/15/2010	3491.3	BE-7	1.21E-01	1.82E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/15/2010	3491.3	K-40	6.91E-02	1.37E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/15/2010	3491.3	PB-212	2.19E-03	9.12E-04
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/15/2010	3491.3	BI-214	3.26E-03	1.69E-03
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/15/2010	3491.3	RA-226	2.15E-02	1.22E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	2/15/2010	3491.3	TH-234	2.04E-02	1.36E-02

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Air Particulate*

*Quantity: CUBIC METERS*

*Concentration (Activity): pCi/cubic meter*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	5/17/2010	3568.3	K-40	3.00E-02	1.84E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	5/17/2010	3568.3	BE-7	1.56E-01	3.04E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	5/17/2010	3568.3	PB-214	4.15E-03	2.65E-03
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/16/2010	3696.6	BE-7	1.15E-01	3.01E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/16/2010	3696.6	K-40	6.04E-02	2.13E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/16/2010	3696.6	BI-214	1.19E-02	3.79E-03
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	8/16/2010	3696.6	PB-214	1.38E-02	3.19E-03
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	11/15/2010	3661.1	PB-214	5.39E-03	2.76E-03
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	11/15/2010	3661.1	BE-7	1.01E-01	3.07E-02
206 11.3 MI NW - BRUNSWICK COUNTY COMPLEX (CONTROL)	11/15/2010	3661.1	BI-214	2.28E-03	2.12E-03



# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
800	0.7 MI NE - INTAKE CANAL	1/1/2010	382.1	BE-7	1.91E+00	2.64E-01
800	0.7 MI NE - INTAKE CANAL	1/1/2010	382.1	BI-214	5.95E-02	3.69E-02
800	0.7 MI NE - INTAKE CANAL	1/1/2010	382.1	K-40	2.91E+00	3.85E-01
800	0.7 MI NE - INTAKE CANAL	1/1/2010	382.1	PB-212	3.05E-02	2.21E-02
800	0.7 MI NE - INTAKE CANAL	2/1/2010	433.9	TH-234	7.47E-01	4.59E-01
800	0.7 MI NE - INTAKE CANAL	2/1/2010	433.9	RA-226	3.65E-01	3.05E-01
800	0.7 MI NE - INTAKE CANAL	2/1/2010	433.9	BE-7	2.23E+00	2.32E-01
800	0.7 MI NE - INTAKE CANAL	2/1/2010	433.9	BI-214	8.32E-02	3.78E-02
800	0.7 MI NE - INTAKE CANAL	2/1/2010	433.9	PB-212	3.05E-02	2.19E-02
800	0.7 MI NE - INTAKE CANAL	2/1/2010	433.9	TL-208	3.18E-02	1.77E-02
800	0.7 MI NE - INTAKE CANAL	2/1/2010	433.9	K-40	2.91E+00	3.43E-01
800	0.7 MI NE - INTAKE CANAL	3/1/2010	411.6	TL-208	2.26E-02	1.69E-02
800	0.7 MI NE - INTAKE CANAL	3/1/2010	411.6	BE-7	3.87E+00	3.42E-01
800	0.7 MI NE - INTAKE CANAL	3/1/2010	411.6	K-40	3.57E+00	4.04E-01
800	0.7 MI NE - INTAKE CANAL	3/1/2010	411.6	BI-214	6.49E-02	3.23E-02
800	0.7 MI NE - INTAKE CANAL	3/1/2010	411.6	PB-214	4.81E-02	3.11E-02
800	0.7 MI NE - INTAKE CANAL	3/1/2010	411.6	PB-212	7.20E-02	3.38E-02
800	0.7 MI NE - INTAKE CANAL	4/1/2010	476.7	PB-212	2.39E-02	1.76E-02
800	0.7 MI NE - INTAKE CANAL	4/1/2010	476.7	TL-208	1.78E-02	1.28E-02

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

Media Type: Broadleaf Vegetation

Quantity: GRAMS (wet)

Concentration (Activity): pCi/gm wet

**Media:** WAX MYRTLE

<b>Sample Point</b>	<b>Sample Date</b>	<b>Quantity</b>	<b>Isotope</b>	<b>Activity</b>	<b>2 Sigma Error</b>
800	0.7 MI NE - INTAKE CANAL	476.7	K-40	2.41E+00	2.96E-01
800	0.7 MI NE - INTAKE CANAL	476.7	BE-7	2.99E+00	2.91E-01
800	0.7 MI NE - INTAKE CANAL	476.7	PB-214	6.49E-02	2.87E-02
800	0.7 MI NE - INTAKE CANAL	476.7	RA-226	4.29E-01	2.66E-01
800	0.7 MI NE - INTAKE CANAL	476.7	TH-234	5.37E-01	4.05E-01
800	0.7 MI NE - INTAKE CANAL	476.7	BI-214	1.13E-01	3.31E-02
800	0.7 MI NE - INTAKE CANAL	515.8	BI-214	7.70E-02	2.51E-02
800	0.7 MI NE - INTAKE CANAL	515.8	BE-7	6.19E-01	1.54E-01
800	0.7 MI NE - INTAKE CANAL	515.8	PB-212	1.99E-02	1.45E-02
800	0.7 MI NE - INTAKE CANAL	515.8	PB-214	7.60E-02	2.33E-02
800	0.7 MI NE - INTAKE CANAL	515.8	RA-226	3.63E-01	2.60E-01
800	0.7 MI NE - INTAKE CANAL	515.8	K-40	2.29E+00	2.81E-01
800	0.7 MI NE - INTAKE CANAL	443	K-40	4.23E+00	4.56E-01
800	0.7 MI NE - INTAKE CANAL	443	BE-7	7.21E-01	1.63E-01
800	0.7 MI NE - INTAKE CANAL	443	BI-214	2.47E-02	2.39E-02
800	0.7 MI NE - INTAKE CANAL	443	TL-208	2.24E-02	1.70E-02
800	0.7 MI NE - INTAKE CANAL	443	PB-212	7.48E-02	3.63E-02
800	0.7 MI NE - INTAKE CANAL	638.4	BI-214	2.61E-02	2.13E-02
800	0.7 MI NE - INTAKE CANAL	638.4	TH-234	7.55E-01	3.71E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
800	0.7 MI NE - INTAKE CANAL	7/1/2010	638.4	K-40	3.05E+00	3.74E-01
800	0.7 MI NE - INTAKE CANAL	7/1/2010	638.4	BE-7	6.99E-01	1.37E-01
800	0.7 MI NE - INTAKE CANAL	8/2/2010	522.8	TL-208	2.36E-02	1.30E-02
800	0.7 MI NE - INTAKE CANAL	8/2/2010	522.8	RA-226	2.87E-01	2.53E-01
800	0.7 MI NE - INTAKE CANAL	8/2/2010	522.8	PB-212	5.36E-02	3.00E-02
800	0.7 MI NE - INTAKE CANAL	8/2/2010	522.8	K-40	3.55E+00	4.27E-01
800	0.7 MI NE - INTAKE CANAL	8/2/2010	522.8	BE-7	1.50E+00	2.17E-01
800	0.7 MI NE - INTAKE CANAL	8/2/2010	522.8	BI-214	4.88E-02	2.98E-02
800	0.7 MI NE - INTAKE CANAL	9/1/2010	472.4	TL-208	2.37E-02	1.45E-02
800	0.7 MI NE - INTAKE CANAL	9/1/2010	472.4	BI-212	1.65E-01	1.15E-01
800	0.7 MI NE - INTAKE CANAL	9/1/2010	472.4	PB-212	5.95E-02	2.75E-02
800	0.7 MI NE - INTAKE CANAL	9/1/2010	472.4	BI-214	9.35E-02	2.94E-02
800	0.7 MI NE - INTAKE CANAL	9/1/2010	472.4	PB-214	4.19E-02	2.83E-02
800	0.7 MI NE - INTAKE CANAL	9/1/2010	472.4	K-40	4.36E+00	5.25E-01
800	0.7 MI NE - INTAKE CANAL	9/1/2010	472.4	BE-7	2.53E+00	3.08E-01
800	0.7 MI NE - INTAKE CANAL	10/4/2010	496.4	RA-226	4.09E-01	2.41E-01
800	0.7 MI NE - INTAKE CANAL	10/4/2010	496.4	PB-212	2.86E-02	2.02E-02
800	0.7 MI NE - INTAKE CANAL	10/4/2010	496.4	BE-7	3.51E+00	3.77E-01
800	0.7 MI NE - INTAKE CANAL	10/4/2010	496.4	TH-234	3.81E-01	3.37E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
800	0.7 MI NE - INTAKE CANAL	496.4	K-40	2.82E+00	3.93E-01
800	0.7 MI NE - INTAKE CANAL	496.4	BI-214	8.87E-02	2.83E-02
800	0.7 MI NE - INTAKE CANAL	496.4	PB-214	6.70E-02	2.98E-02
800	0.7 MI NE - INTAKE CANAL	546.4	K-40	3.10E+00	3.72E-01
800	0.7 MI NE - INTAKE CANAL	546.4	TL-208	2.87E-02	1.10E-02
800	0.7 MI NE - INTAKE CANAL	546.4	BE-7	2.88E+00	3.17E-01
800	0.7 MI NE - INTAKE CANAL	546.4	PB-212	3.85E-02	2.22E-02
800	0.7 MI NE - INTAKE CANAL	546.4	RA-226	6.09E-01	2.89E-01
800	0.7 MI NE - INTAKE CANAL	546.4	BI-214	4.14E-02	2.10E-02
800	0.7 MI NE - INTAKE CANAL	546.4	TH-234	3.52E-01	3.26E-01
800	0.7 MI NE - INTAKE CANAL	512.5	K-40	3.17E+00	4.08E-01
800	0.7 MI NE - INTAKE CANAL	512.5	PB-214	9.00E-02	3.56E-02
800	0.7 MI NE - INTAKE CANAL	512.5	BI-214	7.85E-02	2.48E-02
800	0.7 MI NE - INTAKE CANAL	512.5	TL-208	2.66E-02	1.14E-02
800	0.7 MI NE - INTAKE CANAL	512.5	PB-212	3.36E-02	2.34E-02
800	0.7 MI NE - INTAKE CANAL	512.5	BE-7	1.64E+00	2.32E-01
801	0.8 MI SW - DISCHARGE CANAL	446.2	RA-226	4.64E-01	2.76E-01
801	0.8 MI SW - DISCHARGE CANAL	446.2	TH-234	1.03E+00	5.28E-01
801	0.8 MI SW - DISCHARGE CANAL	446.2	PB-214	1.02E-01	2.92E-02

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
801	0.8 MI SW - DISCHARGE CANAL	1/1/2010	446.2	BI-214	6.94E-02	3.41E-02
801	0.8 MI SW - DISCHARGE CANAL	1/1/2010	446.2	PB-212	2.76E-02	2.45E-02
801	0.8 MI SW - DISCHARGE CANAL	1/1/2010	446.2	K-40	1.99E+00	2.90E-01
801	0.8 MI SW - DISCHARGE CANAL	1/1/2010	446.2	BE-7	2.97E+00	2.85E-01
801	0.8 MI SW - DISCHARGE CANAL	2/1/2010	398.8	BE-7	1.65E+00	2.05E-01
801	0.8 MI SW - DISCHARGE CANAL	2/1/2010	398.8	K-40	2.80E+00	3.74E-01
801	0.8 MI SW - DISCHARGE CANAL	2/1/2010	398.8	TL-208	3.64E-02	1.45E-02
801	0.8 MI SW - DISCHARGE CANAL	2/1/2010	398.8	PB-212	5.19E-02	2.15E-02
801	0.8 MI SW - DISCHARGE CANAL	2/1/2010	398.8	RA-226	6.60E-01	3.70E-01
801	0.8 MI SW - DISCHARGE CANAL	2/1/2010	398.8	PB-214	7.47E-02	3.04E-02
801	0.8 MI SW - DISCHARGE CANAL	2/1/2010	398.8	BI-214	1.27E-01	3.89E-02
801	0.8 MI SW - DISCHARGE CANAL	2/1/2010	398.8	TH-234	6.21E-01	4.58E-01
801	0.8 MI SW - DISCHARGE CANAL	3/1/2010	442.8	PB-212	5.74E-02	2.56E-02
801	0.8 MI SW - DISCHARGE CANAL	3/1/2010	442.8	BE-7	1.90E+00	2.14E-01
801	0.8 MI SW - DISCHARGE CANAL	3/1/2010	442.8	K-40	2.64E+00	3.35E-01
801	0.8 MI SW - DISCHARGE CANAL	3/1/2010	442.8	TL-208	3.67E-02	1.43E-02
801	0.8 MI SW - DISCHARGE CANAL	3/1/2010	442.8	BI-214	7.47E-02	2.56E-02
801	0.8 MI SW - DISCHARGE CANAL	3/1/2010	442.8	RA-226	4.85E-01	3.65E-01
801	0.8 MI SW - DISCHARGE CANAL	3/1/2010	442.8	TH-234	4.58E-01	4.21E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
801	0.8 MI SW - DISCHARGE CANAL	3/1/2010	442.8	PB-214	5.66E-02	2.81E-02
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	RA-226	5.11E-01	3.05E-01
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	AC-228	8.56E-02	4.27E-02
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	PB-214	1.13E-01	2.89E-02
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	BI-214	8.33E-02	2.40E-02
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	PB-212	4.18E-02	2.03E-02
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	TL-208	1.81E-02	9.11E-03
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	K-40	2.81E+00	3.11E-01
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	BE-7	2.01E+00	2.18E-01
801	0.8 MI SW - DISCHARGE CANAL	4/1/2010	547.7	TH-234	3.48E-01	2.56E-01
801	0.8 MI SW - DISCHARGE CANAL	5/1/2010	479.9	PB-214	7.33E-02	2.28E-02
801	0.8 MI SW - DISCHARGE CANAL	5/1/2010	479.9	BE-7	6.55E-01	1.41E-01
801	0.8 MI SW - DISCHARGE CANAL	5/1/2010	479.9	K-40	3.51E+00	4.10E-01
801	0.8 MI SW - DISCHARGE CANAL	5/1/2010	479.9	PB-212	4.26E-02	1.63E-02
801	0.8 MI SW - DISCHARGE CANAL	5/1/2010	479.9	RA-226	3.94E-01	2.45E-01
801	0.8 MI SW - DISCHARGE CANAL	5/1/2010	479.9	BI-214	1.08E-01	3.31E-02
801	0.8 MI SW - DISCHARGE CANAL	6/1/2010	494.7	PB-214	6.84E-02	2.46E-02
801	0.8 MI SW - DISCHARGE CANAL	6/1/2010	494.7	BE-7	3.95E-01	1.41E-01
801	0.8 MI SW - DISCHARGE CANAL	6/1/2010	494.7	K-40	3.13E+00	3.38E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
801	0.8 MI SW - DISCHARGE CANAL	494.7	BI-214	7.34E-02	2.81E-02
801	0.8 MI SW - DISCHARGE CANAL	494.7	RA-226	5.06E-01	2.28E-01
801	0.8 MI SW - DISCHARGE CANAL	494.7	TH-234	5.73E-01	4.17E-01
801	0.8 MI SW - DISCHARGE CANAL	494.7	PB-212	3.12E-02	1.56E-02
801	0.8 MI SW - DISCHARGE CANAL	605.7	BI-214	3.93E-02	2.42E-02
801	0.8 MI SW - DISCHARGE CANAL	605.7	PB-212	2.04E-02	1.46E-02
801	0.8 MI SW - DISCHARGE CANAL	605.7	K-40	3.42E+00	4.06E-01
801	0.8 MI SW - DISCHARGE CANAL	605.7	BE-7	9.08E-01	1.50E-01
801	0.8 MI SW - DISCHARGE CANAL	605.7	RA-226	4.85E-01	2.29E-01
801	0.8 MI SW - DISCHARGE CANAL	605.7	PB-214	4.93E-02	2.21E-02
801	0.8 MI SW - DISCHARGE CANAL	493.7	BE-7	1.49E+00	2.07E-01
801	0.8 MI SW - DISCHARGE CANAL	493.7	K-40	3.47E+00	4.55E-01
801	0.8 MI SW - DISCHARGE CANAL	493.7	TL-208	1.78E-02	1.62E-02
801	0.8 MI SW - DISCHARGE CANAL	493.7	BI-214	5.58E-02	2.91E-02
801	0.8 MI SW - DISCHARGE CANAL	493.7	RA-226	3.79E-01	2.41E-01
801	0.8 MI SW - DISCHARGE CANAL	493.7	TH-234	9.22E-01	3.95E-01
801	0.8 MI SW - DISCHARGE CANAL	493.7	PB-212	5.31E-02	2.36E-02
801	0.8 MI SW - DISCHARGE CANAL	500.5	BI-214	1.10E-01	2.89E-02
801	0.8 MI SW - DISCHARGE CANAL	500.5	PB-212	6.54E-02	2.41E-02

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
801	0.8 MI SW - DISCHARGE CANAL	9/1/2010	500.5	BE-7	1.31E+00	1.99E-01
801	0.8 MI SW - DISCHARGE CANAL	9/1/2010	500.5	PB-214	9.02E-02	2.98E-02
801	0.8 MI SW - DISCHARGE CANAL	9/1/2010	500.5	RA-226	3.54E-01	2.69E-01
801	0.8 MI SW - DISCHARGE CANAL	9/1/2010	500.5	TL-208	3.29E-02	1.37E-02
801	0.8 MI SW - DISCHARGE CANAL	9/1/2010	500.5	K-40	3.42E+00	4.23E-01
801	0.8 MI SW - DISCHARGE CANAL	10/4/2010	584.7	TL-208	1.72E-02	1.41E-02
801	0.8 MI SW - DISCHARGE CANAL	10/4/2010	584.7	K-40	3.01E+00	3.59E-01
801	0.8 MI SW - DISCHARGE CANAL	10/4/2010	584.7	BE-7	3.34E+00	3.60E-01
801	0.8 MI SW - DISCHARGE CANAL	10/4/2010	584.7	BI-214	9.48E-02	2.59E-02
801	0.8 MI SW - DISCHARGE CANAL	10/4/2010	584.7	PB-214	1.11E-01	2.99E-02
801	0.8 MI SW - DISCHARGE CANAL	10/4/2010	584.7	RA-226	8.49E-01	3.53E-01
801	0.8 MI SW - DISCHARGE CANAL	10/4/2010	584.7	TH-234	4.34E-01	2.79E-01
801	0.8 MI SW - DISCHARGE CANAL	10/4/2010	584.7	PB-212	3.45E-02	1.94E-02
801	0.8 MI SW - DISCHARGE CANAL	11/1/2010	501.5	PB-214	6.69E-02	2.47E-02
801	0.8 MI SW - DISCHARGE CANAL	11/1/2010	501.5	RA-226	6.28E-01	3.44E-01
801	0.8 MI SW - DISCHARGE CANAL	11/1/2010	501.5	BI-214	6.02E-02	3.19E-02
801	0.8 MI SW - DISCHARGE CANAL	11/1/2010	501.5	BE-7	1.45E+00	2.07E-01
801	0.8 MI SW - DISCHARGE CANAL	11/1/2010	501.5	K-40	3.12E+00	3.96E-01
801	0.8 MI SW - DISCHARGE CANAL	11/1/2010	501.5	TL-208	1.77E-02	1.59E-02



# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
801	0.8 MI SW - DISCHARGE CANAL	11/1/2010	501.5	PB-212	4.98E-02	1.99E-02
801	0.8 MI SW - DISCHARGE CANAL	11/1/2010	501.5	TH-234	5.58E-01	3.76E-01
801	0.8 MI SW - DISCHARGE CANAL	12/1/2010	483.3	BE-7	1.47E+00	2.25E-01
801	0.8 MI SW - DISCHARGE CANAL	12/1/2010	483.3	RA-226	5.90E-01	2.53E-01
801	0.8 MI SW - DISCHARGE CANAL	12/1/2010	483.3	AC-228	9.84E-02	5.29E-02
801	0.8 MI SW - DISCHARGE CANAL	12/1/2010	483.3	BI-214	1.30E-01	3.64E-02
801	0.8 MI SW - DISCHARGE CANAL	12/1/2010	483.3	PB-212	6.60E-02	2.71E-02
801	0.8 MI SW - DISCHARGE CANAL	12/1/2010	483.3	K-40	2.47E+00	3.58E-01
801	0.8 MI SW - DISCHARGE CANAL	12/1/2010	483.3	PB-214	1.30E-01	3.96E-02
801	0.8 MI SW - DISCHARGE CANAL	12/1/2010	483.3	TL-208	2.96E-02	1.70E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/1/2010	426.4	BE-7	1.64E+00	2.68E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/1/2010	426.4	BI-214	1.27E-01	5.07E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/1/2010	426.4	PB-214	1.23E-01	4.15E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/1/2010	426.4	RA-226	1.19E+00	4.37E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/1/2010	426.4	K-40	2.25E+00	3.87E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/1/2010	426.4	AC-228	1.17E-01	8.73E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	1/1/2010	426.4	PB-212	6.75E-02	3.48E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2010	488.2	TL-208	2.84E-02	1.21E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2010	488.2	K-40	2.76E+00	3.40E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2010	488.2	BI-214	7.29E-02	2.99E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2010	488.2	PB-212	5.69E-02	2.01E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2010	488.2	PB-214	8.30E-02	3.96E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2010	488.2	AC-228	1.51E-01	6.42E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	2/1/2010	488.2	BE-7	2.79E+00	2.65E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	AC-228	1.07E-01	5.98E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	BI-214	7.31E-02	2.61E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	RA-226	5.68E-01	2.51E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	PB-212	5.81E-02	2.45E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	PB-214	6.06E-02	3.12E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	BE-7	4.75E+00	3.81E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	K-40	2.36E+00	2.86E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	TL-208	2.64E-02	1.22E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	3/1/2010	491.9	TH-234	7.33E-01	4.24E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	4/1/2010	528.6	K-40	2.20E+00	2.85E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	4/1/2010	528.6	RA-226	3.12E-01	2.78E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	4/1/2010	528.6	PB-214	5.71E-02	2.76E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	4/1/2010	528.6	PB-212	2.88E-02	1.80E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	4/1/2010	528.6	BE-7	3.04E+00	2.90E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	4/1/2010	528.6	BI-214	1.04E-01	3.23E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	5/1/2010	545.1	PB-212	3.10E-02	1.90E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	5/1/2010	545.1	K-40	3.14E+00	3.56E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	5/1/2010	545.1	BI-214	3.52E-02	2.11E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	5/1/2010	545.1	BE-7	6.55E-01	1.27E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	5/1/2010	545.1	RA-226	2.99E-01	2.30E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2010	461.4	PB-212	2.32E-02	1.83E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2010	461.4	K-40	3.59E+00	4.15E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2010	461.4	BI-214	8.76E-02	3.41E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2010	461.4	PB-214	1.13E-01	3.64E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2010	461.4	RA-226	3.70E-01	2.86E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	6/1/2010	461.4	BE-7	1.55E+00	2.12E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	TL-208	2.09E-02	1.25E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	TH-234	6.35E-01	3.00E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	RA-226	5.55E-01	2.56E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	PB-212	3.57E-02	1.61E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	PB-214	5.07E-02	2.72E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	AC-228	1.10E-01	5.45E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	K-40	2.87E+00	3.55E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

Media Type: Broadleaf Vegetation

Quantity: GRAMS (wet)

Concentration (Activity): pCi/gm wet

**Media:** WAX MYRTLE

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	BE-7	1.21E+00	1.81E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	7/1/2010	597.1	BI-214	6.41E-02	2.08E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/2/2010	484.3	PB-212	4.33E-02	2.97E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/2/2010	484.3	BI-214	8.70E-02	3.57E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/2/2010	484.3	K-40	2.77E+00	3.63E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/2/2010	484.3	BE-7	2.19E+00	2.74E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/2/2010	484.3	TH-234	5.39E-01	4.56E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/2/2010	484.3	RA-226	8.33E-01	4.87E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/2/2010	484.3	AC-228	8.98E-02	5.64E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	8/2/2010	484.3	PB-214	6.57E-02	2.78E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	PB-212	6.10E-02	2.19E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	BE-7	2.12E+00	2.56E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	PB-214	1.01E-01	3.11E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	K-40	2.84E+00	4.09E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	BI-214	1.20E-01	3.45E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	TH-234	6.03E-01	3.31E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	TL-208	3.92E-02	1.58E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	AC-228	6.54E-02	5.06E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	9/1/2010	519.2	RA-226	6.51E-01	2.97E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b>Sample Point</b>	<b>Sample Date</b>	<b>Quantity</b>	<b>Isotope</b>	<b>Activity</b>	<b>2 Sigma Error</b>	
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/4/2010	530.4	RA-226	8.33E-01	3.21E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/4/2010	530.4	AC-228	1.75E-01	6.50E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/4/2010	530.4	BI-214	1.21E-01	3.27E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/4/2010	530.4	BE-7	2.45E+00	2.89E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/4/2010	530.4	K-40	2.03E+00	2.93E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/4/2010	530.4	PB-214	1.03E-01	3.62E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	10/4/2010	530.4	PB-212	4.30E-02	1.88E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	PB-214	8.76E-02	3.45E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	TH-234	5.13E-01	3.62E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	BI-214	9.47E-02	2.90E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	PB-212	5.32E-02	2.31E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	TL-208	1.71E-02	1.39E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	BE-7	3.14E+00	3.48E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	AC-228	1.33E-01	4.30E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	CS-137	1.73E-02	1.32E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	K-40	2.33E+00	3.18E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	11/1/2010	531.3	RA-226	5.23E-01	4.41E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2010	519.2	RA-226	6.77E-01	3.13E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2010	519.2	TH-234	5.75E-01	3.86E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2010	519.2	PB-214	8.59E-02	2.80E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2010	519.2	BI-214	1.25E-01	3.27E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2010	519.2	BE-7	1.70E+00	2.37E-01
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2010	519.2	TL-208	2.66E-02	1.09E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2010	519.2	PB-212	5.87E-02	2.29E-02
802	10.1 MI - (CONTROL) - LOCATION NOT SPECIFIED	12/1/2010	519.2	K-40	2.15E+00	3.13E-01
803	0.6 MI SSE - SPOIL POND	1/1/2010	469.8	RA-226	5.36E-01	4.01E-01
803	0.6 MI SSE - SPOIL POND	1/1/2010	469.8	BI-214	4.74E-02	3.66E-02
803	0.6 MI SSE - SPOIL POND	1/1/2010	469.8	PB-212	2.94E-02	3.02E-02
803	0.6 MI SSE - SPOIL POND	1/1/2010	469.8	BE-7	2.63E+00	3.51E-01
803	0.6 MI SSE - SPOIL POND	1/1/2010	469.8	K-40	2.46E+00	4.17E-01
803	0.6 MI SSE - SPOIL POND	2/1/2010	457.7	BE-7	2.25E+00	2.37E-01
803	0.6 MI SSE - SPOIL POND	2/1/2010	457.7	RA-226	4.70E-01	3.25E-01
803	0.6 MI SSE - SPOIL POND	2/1/2010	457.7	PB-214	6.66E-02	3.13E-02
803	0.6 MI SSE - SPOIL POND	2/1/2010	457.7	BI-214	1.13E-01	2.82E-02
803	0.6 MI SSE - SPOIL POND	2/1/2010	457.7	PB-212	3.73E-02	2.33E-02
803	0.6 MI SSE - SPOIL POND	2/1/2010	457.7	K-40	2.27E+00	3.11E-01
803	0.6 MI SSE - SPOIL POND	2/1/2010	457.7	TL-208	2.10E-02	1.62E-02
803	0.6 MI SSE - SPOIL POND	3/1/2010	420.2	K-40	2.96E+00	4.55E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

Media Type: Broadleaf Vegetation

Quantity: GRAMS (wet)

Concentration (Activity): pCi/gm wet

**Media:** WAX MYRTLE

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
803	0.6 MI SSE - SPOIL POND	3/1/2010	420.2	PB-212	6.51E-02	3.12E-02
803	0.6 MI SSE - SPOIL POND	3/1/2010	420.2	BI-214	7.76E-02	4.01E-02
803	0.6 MI SSE - SPOIL POND	3/1/2010	420.2	RA-226	5.71E-01	3.27E-01
803	0.6 MI SSE - SPOIL POND	3/1/2010	420.2	BE-7	2.66E+00	3.44E-01
803	0.6 MI SSE - SPOIL POND	4/1/2010	416.7	TH-234	4.62E-01	4.16E-01
803	0.6 MI SSE - SPOIL POND	4/1/2010	416.7	RA-226	5.95E-01	2.69E-01
803	0.6 MI SSE - SPOIL POND	4/1/2010	416.7	PB-214	8.38E-02	3.31E-02
803	0.6 MI SSE - SPOIL POND	4/1/2010	416.7	BI-214	1.28E-01	3.90E-02
803	0.6 MI SSE - SPOIL POND	4/1/2010	416.7	PB-212	3.33E-02	1.92E-02
803	0.6 MI SSE - SPOIL POND	4/1/2010	416.7	K-40	2.59E+00	3.27E-01
803	0.6 MI SSE - SPOIL POND	4/1/2010	416.7	BE-7	2.79E+00	2.66E-01
803	0.6 MI SSE - SPOIL POND	5/1/2010	538.8	TH-234	4.78E-01	2.53E-01
803	0.6 MI SSE - SPOIL POND	5/1/2010	538.8	BE-7	8.78E-01	1.44E-01
803	0.6 MI SSE - SPOIL POND	5/1/2010	538.8	K-40	3.09E+00	3.35E-01
803	0.6 MI SSE - SPOIL POND	5/1/2010	538.8	BI-214	4.89E-02	2.86E-02
803	0.6 MI SSE - SPOIL POND	5/1/2010	538.8	RA-226	3.49E-01	2.75E-01
803	0.6 MI SSE - SPOIL POND	5/1/2010	538.8	PB-214	6.44E-02	2.70E-02
803	0.6 MI SSE - SPOIL POND	6/1/2010	545.1	PB-214	4.19E-02	2.33E-02
803	0.6 MI SSE - SPOIL POND	6/1/2010	545.1	BE-7	5.72E-01	1.37E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
803	0.6 MI SSE - SPOIL POND	6/1/2010	545.1	PB-212	3.21E-02	1.87E-02
803	0.6 MI SSE - SPOIL POND	6/1/2010	545.1	K-40	2.17E+00	2.64E-01
803	0.6 MI SSE - SPOIL POND	6/1/2010	545.1	BI-214	6.96E-02	2.85E-02
803	0.6 MI SSE - SPOIL POND	6/1/2010	545.1	RA-226	3.06E-01	2.06E-01
803	0.6 MI SSE - SPOIL POND	7/1/2010	600.9	BE-7	2.92E-01	1.22E-01
803	0.6 MI SSE - SPOIL POND	7/1/2010	600.9	RA-226	2.86E-01	2.27E-01
803	0.6 MI SSE - SPOIL POND	7/1/2010	600.9	BI-214	4.08E-02	2.25E-02
803	0.6 MI SSE - SPOIL POND	7/1/2010	600.9	K-40	3.40E+00	4.08E-01
803	0.6 MI SSE - SPOIL POND	8/2/2010	539.6	TL-208	2.01E-02	1.46E-02
803	0.6 MI SSE - SPOIL POND	8/2/2010	539.6	PB-214	5.69E-02	2.97E-02
803	0.6 MI SSE - SPOIL POND	8/2/2010	539.6	K-40	3.92E+00	4.74E-01
803	0.6 MI SSE - SPOIL POND	8/2/2010	539.6	BE-7	1.42E+00	1.93E-01
803	0.6 MI SSE - SPOIL POND	8/2/2010	539.6	PB-212	1.82E-02	1.74E-02
803	0.6 MI SSE - SPOIL POND	8/2/2010	539.6	BI-214	6.80E-02	3.22E-02
803	0.6 MI SSE - SPOIL POND	8/2/2010	539.6	RA-226	2.80E-01	2.62E-01
803	0.6 MI SSE - SPOIL POND	9/1/2010	455.8	TL-208	2.71E-02	1.58E-02
803	0.6 MI SSE - SPOIL POND	9/1/2010	455.8	K-40	3.56E+00	4.53E-01
803	0.6 MI SSE - SPOIL POND	9/1/2010	455.8	PB-212	5.75E-02	2.64E-02
803	0.6 MI SSE - SPOIL POND	9/1/2010	455.8	BI-214	4.10E-02	3.12E-02



# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b>Sample Point</b>	<b>Sample Date</b>	<b>Quantity</b>	<b>Isotope</b>	<b>Activity</b>	<b>2 Sigma Error</b>	
803	0.6 MI SSE - SPOIL POND	9/1/2010	455.8	BE-7	1.61E+00	2.37E-01
803	0.6 MI SSE - SPOIL POND	10/4/2010	508.2	PB-212	4.09E-02	2.59E-02
803	0.6 MI SSE - SPOIL POND	10/4/2010	508.2	TL-208	1.88E-02	1.61E-02
803	0.6 MI SSE - SPOIL POND	10/4/2010	508.2	BI-214	8.23E-02	2.65E-02
803	0.6 MI SSE - SPOIL POND	10/4/2010	508.2	PB-214	5.56E-02	3.08E-02
803	0.6 MI SSE - SPOIL POND	10/4/2010	508.2	RA-226	5.51E-01	2.75E-01
803	0.6 MI SSE - SPOIL POND	10/4/2010	508.2	TH-234	4.89E-01	3.51E-01
803	0.6 MI SSE - SPOIL POND	10/4/2010	508.2	BE-7	5.07E+00	5.10E-01
803	0.6 MI SSE - SPOIL POND	10/4/2010	508.2	K-40	3.32E+00	4.10E-01
803	0.6 MI SSE - SPOIL POND	11/1/2010	482.1	PB-212	3.44E-02	2.07E-02
803	0.6 MI SSE - SPOIL POND	11/1/2010	482.1	K-40	3.14E+00	4.14E-01
803	0.6 MI SSE - SPOIL POND	11/1/2010	482.1	BE-7	2.65E+00	3.20E-01
803	0.6 MI SSE - SPOIL POND	11/1/2010	482.1	BI-214	6.93E-02	2.86E-02
803	0.6 MI SSE - SPOIL POND	11/1/2010	482.1	TH-234	4.80E-01	3.69E-01
803	0.6 MI SSE - SPOIL POND	11/1/2010	482.1	RA-226	5.62E-01	2.91E-01
803	0.6 MI SSE - SPOIL POND	11/1/2010	482.1	PB-214	8.92E-02	2.58E-02
803	0.6 MI SSE - SPOIL POND	12/1/2010	468.6	K-40	3.77E+00	4.58E-01
803	0.6 MI SSE - SPOIL POND	12/1/2010	468.6	TL-208	2.44E-02	1.06E-02
803	0.6 MI SSE - SPOIL POND	12/1/2010	468.6	BI-214	3.04E-02	2.49E-02

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

Media Type: Broadleaf Vegetation

Quantity: GRAMS (wet)

Concentration (Activity): pCi/gm wet

**Media:** WAX MYRTLE

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
803	0.6 MI SSE - SPOIL POND	12/1/2010	468.6	PB-214	5.33E-02	2.77E-02
803	0.6 MI SSE - SPOIL POND	12/1/2010	468.6	TH-234	4.36E-01	3.63E-01
803	0.6 MI SSE - SPOIL POND	12/1/2010	468.6	BE-7	2.28E+00	2.87E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	1/1/2010	456.1	BI-214	5.69E-02	3.56E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	1/1/2010	456.1	RA-226	6.60E-01	3.02E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	1/1/2010	456.1	BE-7	2.21E+00	2.35E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	1/1/2010	456.1	TH-234	7.15E-01	4.10E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	1/1/2010	456.1	K-40	2.25E+00	2.96E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	2/1/2010	502.2	RA-226	3.42E-01	2.23E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	2/1/2010	502.2	PB-214	6.99E-02	2.32E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	2/1/2010	502.2	BE-7	2.70E+00	2.55E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	2/1/2010	502.2	BI-214	9.06E-02	2.75E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	2/1/2010	502.2	TL-208	1.87E-02	1.10E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	2/1/2010	502.2	K-40	2.01E+00	2.64E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2010	400.8	BE-7	4.10E+00	4.36E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2010	400.8	RA-226	6.37E-01	4.23E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2010	400.8	BI-214	7.54E-02	3.44E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2010	400.8	PB-212	7.22E-02	4.09E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2010	400.8	K-40	2.31E+00	4.22E-01

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	3/1/2010	400.8	TL-208	5.90E-02	1.96E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	4/1/2010	427.8	K-40	2.69E+00	3.61E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	4/1/2010	427.8	RA-226	9.03E-01	3.53E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	4/1/2010	427.8	BI-214	7.19E-02	3.01E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	4/1/2010	427.8	PB-212	4.91E-02	2.07E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	4/1/2010	427.8	BE-7	3.27E+00	3.13E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	4/1/2010	427.8	TH-234	6.17E-01	4.07E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	5/1/2010	623.6	BE-7	5.19E-01	1.16E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	5/1/2010	623.6	K-40	2.92E+00	3.37E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	5/1/2010	623.6	BI-214	4.33E-02	1.93E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	5/1/2010	623.6	RA-226	2.93E-01	2.22E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	6/1/2010	497.5	PB-214	3.45E-02	2.84E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	6/1/2010	497.5	BI-214	4.92E-02	2.44E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	6/1/2010	497.5	PB-212	2.79E-02	1.71E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	6/1/2010	497.5	BE-7	3.58E-01	1.16E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	6/1/2010	497.5	K-40	3.48E+00	3.78E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2010	704.6	BE-7	7.40E-01	1.22E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2010	704.6	K-40	2.18E+00	2.90E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2010	704.6	PB-212	2.77E-02	2.04E-02

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2010	704.6	BI-214	4.62E-02	1.99E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2010	704.6	RA-226	4.00E-01	1.99E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	7/1/2010	704.6	TH-234	4.42E-01	3.21E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/2/2010	583	BE-7	1.00E+00	1.70E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/2/2010	583	TH-234	8.90E-01	4.52E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/2/2010	583	K-40	2.73E+00	3.45E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/2/2010	583	TL-208	3.05E-02	1.23E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/2/2010	583	PB-212	6.13E-02	2.32E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/2/2010	583	BI-214	4.35E-02	2.78E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/2/2010	583	PB-214	3.78E-02	2.90E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	8/2/2010	583	RA-226	6.73E-01	2.50E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2010	473.2	BE-7	1.79E+00	2.50E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2010	473.2	K-40	2.61E+00	3.64E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2010	473.2	TL-208	1.83E-02	1.43E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2010	473.2	PB-212	6.83E-02	2.27E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2010	473.2	BI-214	6.71E-02	3.49E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2010	473.2	TH-234	4.62E-01	3.72E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2010	473.2	RA-226	6.01E-01	2.90E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	9/1/2010	473.2	PB-214	6.46E-02	2.84E-02

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	10/4/2010	523.9	PB-212	4.04E-02	2.79E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	10/4/2010	523.9	BE-7	3.02E+00	3.37E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	10/4/2010	523.9	K-40	3.12E+00	3.91E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	10/4/2010	523.9	BI-214	4.68E-02	2.59E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	10/4/2010	523.9	TL-208	2.04E-02	1.39E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2010	476.4	K-40	2.49E+00	3.50E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2010	476.4	TL-208	2.99E-02	1.54E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2010	476.4	BE-7	2.47E+00	2.98E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2010	476.4	BI-214	8.03E-02	2.77E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2010	476.4	PB-214	4.51E-02	2.76E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2010	476.4	RA-226	8.38E-01	3.54E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2010	476.4	TH-234	9.04E-01	5.28E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	11/1/2010	476.4	PB-212	5.49E-02	2.46E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2010	569.4	TH-234	4.41E-01	2.99E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2010	569.4	BE-7	1.41E+00	1.99E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2010	569.4	K-40	1.94E+00	2.95E-01
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2010	569.4	TL-208	3.07E-02	1.17E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2010	569.4	PB-212	4.24E-02	2.00E-02
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2010	569.4	PB-214	5.12E-02	2.37E-02

# ***BNP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Broadleaf Vegetation*

*Quantity: GRAMS (wet)*

*Concentration (Activity): pCi/gm wet*

**Media:** WAX MYRTLE

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
804	0.7 MILES S - LEONARD STREET PLANT EXIT ADJ	12/1/2010	569.4	RA-226	2.66E-01	2.40E-01

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

Media Type: Fish and Invertebrates

Quantity: GRAMS (wet)

Concentration (Activity): pCi/gm wet

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
700	5.5 MI SSW - FREE SWIMMERS - ATLANTIC OCEAN AT DI	5/20/2010	789.6	K-40	5.38E+00	7.31E-01
700	5.5 MI SSW - FREE SWIMMERS - ATLANTIC OCEAN AT DI	10/20/2010	679.1	BI-214	5.37E-02	4.05E-02
700	5.5 MI SSW - FREE SWIMMERS - ATLANTIC OCEAN AT DI	10/20/2010	679.1	K-40	4.59E+00	7.10E-01
701	5.5 MI SSW - BOTTOM FEEDER - ATLANTIC OCEAN AT DI	5/20/2010	692.3	K-40	3.16E+00	5.62E-01
701	5.5 MI SSW - BOTTOM FEEDER - ATLANTIC OCEAN AT DI	10/20/2010	593.4	K-40	3.57E+00	6.33E-01
702	5.5 MI SSW - SH/BO* - ATLANTIC OCEAN AT DISCHARGE	5/20/2010	645.2	PB-212	3.71E-02	2.56E-02
702	5.5 MI SSW - SH/BO* - ATLANTIC OCEAN AT DISCHARGE	5/20/2010	645.2	PB-214	6.06E-02	3.41E-02
702	5.5 MI SSW - SH/BO* - ATLANTIC OCEAN AT DISCHARGE	5/20/2010	645.2	K-40	2.74E+00	5.44E-01
702	5.5 MI SSW - SH/BO* - ATLANTIC OCEAN AT DISCHARGE	10/20/2010	668.6	K-40	3.52E+00	6.07E-01
702	5.5 MI SSW - SH/BO* - ATLANTIC OCEAN AT DISCHARGE	10/20/2010	668.6	BI-214	5.98E-02	4.14E-02
703	FREE SWIMMERS - ATLANTIC OCEAN (CONTROL)	5/20/2010	680.7	K-40	3.95E+00	6.47E-01
703	FREE SWIMMERS - ATLANTIC OCEAN (CONTROL)	5/20/2010	680.7	PB-212	5.67E-02	3.60E-02
703	FREE SWIMMERS - ATLANTIC OCEAN (CONTROL)	10/26/2010	765.9	K-40	4.67E+00	7.07E-01
704	BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL)	5/20/2010	614.1	K-40	2.80E+00	5.83E-01
704	BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL)	5/20/2010	614.1	BI-214	4.97E-02	3.76E-02
704	BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL)	10/26/2010	648.5	PB-214	9.94E-02	4.24E-02
704	BOTTOM FEEDER - ATLANTIC OCEAN (CONTROL)	10/26/2010	648.5	K-40	3.14E+00	5.97E-01
705	SH/BO* - ATLANTIC OCEAN (CONTROL)	5/20/2010	711.4	RA-226	5.79E-01	3.71E-01
705	SH/BO* - ATLANTIC OCEAN (CONTROL)	5/20/2010	711.4	K-40	2.25E+00	4.52E-01
705	SH/BO* - ATLANTIC OCEAN (CONTROL)	10/26/2010	644.3	K-40	3.32E+00	6.00E-01
706	NANCY'S CREEK - FREE SWIMMERS	9/17/2010	1000	K-40	3.49E+00	
707	NANCY'S CREEK - BOTTOM FEEDERS	9/17/2010	1000	K-40	2.71E+00	
708	NANCY'S CREEK - SH/BO*	9/17/2010	1000	K-40	3.24E+00	

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Shoreline Sediment*

*Quantity: GRAMS (dry)*

*Concentration (Activity): pCi/gm dry*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/24/2010	1658.2	TL-208	3.24E-02	1.34E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/24/2010	1658.2	BI-212	7.70E-02	6.34E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/24/2010	1658.2	PB-212	9.18E-02	2.10E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/24/2010	1658.2	BI-214	1.22E-01	2.93E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/24/2010	1658.2	PB-214	1.48E-01	3.06E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/24/2010	1658.2	RA-226	4.84E-01	3.55E-01
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/24/2010	1658.2	AC-228	8.74E-02	4.15E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	5/24/2010	1658.2	K-40	2.15E+00	3.09E-01
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/25/2010	1557.7	RA-226	7.07E-01	3.90E-01
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/25/2010	1557.7	K-40	1.58E+00	2.88E-01
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/25/2010	1557.7	TL-208	4.47E-02	1.65E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/25/2010	1557.7	PB-212	1.41E-01	3.18E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/25/2010	1557.7	PB-214	1.84E-01	3.50E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/25/2010	1557.7	AC-228	1.67E-01	5.19E-02
500	5.0 MI SSW - DISCHARGE; BEACH NEAR OD PUMPS	10/25/2010	1557.7	BI-214	1.79E-01	3.82E-02
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	TH-234	2.21E+00	1.12E+00
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	K-40	1.05E+01	1.07E+00
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	CS-137	1.57E-01	4.42E-02
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	TL-208	2.14E-01	4.07E-02
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	BI-212	3.57E-01	2.84E-01
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	PB-212	5.31E-01	8.99E-02
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	BI-214	4.81E-01	9.40E-02
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	PB-214	5.57E-01	9.23E-02
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	RA-226	3.08E+00	7.99E-01
501	NANCY'S CREEK ADJACENT TO WP-55 NEAR STORM DR	12/9/2010	821.8	AC-228	5.85E-01	1.24E-01



# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Surface Water*

*Quantity: Liters*

*Concentration (Activity): pCi/L*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
400 0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	1	PB-214	1.43E+01	5.29E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	1	TH-234	1.43E+02	7.87E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	1	RA-226	1.32E+02	4.96E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	1	BI-214	1.35E+01	4.17E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	1	PB-212	8.04E+00	3.21E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	1	TL-208	4.26E+00	1.85E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	1	K-40	6.63E+02	5.72E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	1/16/2010	1	AC-228	1.52E+01	8.39E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	1	PB-214	6.94E+00	4.09E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	1	AC-228	9.95E+00	6.82E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	1	PB-212	1.00E+01	3.54E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	1	TH-234	1.42E+02	7.16E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	1	TL-208	4.64E+00	2.07E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	1	K-40	6.31E+02	5.52E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	1	BI-214	1.08E+01	4.00E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	2/15/2010	1	RA-226	1.70E+02	5.76E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	1	AC-228	1.41E+01	8.62E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	1	TH-234	1.17E+02	6.45E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	1	PB-214	7.70E+00	4.39E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	1	RA-226	1.05E+02	5.01E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	1	BI-214	1.47E+01	5.55E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	1	PB-212	8.10E+00	3.73E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	1	TL-208	8.56E+00	2.95E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	3/16/2010	1	K-40	6.99E+02	5.92E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	1	K-40	6.18E+02	4.90E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	1	TH-234	1.90E+02	5.86E+01

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Surface Water*

*Quantity: Liters*

*Concentration (Activity): pCi/L*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
400 0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	1	AC-228	1.96E+01	5.65E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	1	RA-226	2.20E+02	4.59E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	1	PB-214	1.48E+01	4.09E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	1	BI-214	1.72E+01	4.01E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	1	PB-212	1.58E+01	2.97E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	4/16/2010	1	TL-208	6.75E+00	1.94E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	1	AC-228	1.86E+01	7.52E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	1	TH-234	2.36E+02	6.42E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	1	PB-214	1.59E+01	4.09E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	1	BI-214	1.94E+01	4.48E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	1	PB-212	1.58E+01	2.89E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	1	K-40	7.43E+02	5.77E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	1	RA-226	1.93E+02	4.19E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	5/16/2010	1	TL-208	6.16E+00	1.85E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	6/16/2010	1	BI-214	1.61E+01	3.60E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	6/16/2010	1	K-40	6.71E+02	5.12E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	6/16/2010	1	PB-212	1.75E+01	2.78E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	6/16/2010	1	PB-214	1.61E+01	3.72E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	6/16/2010	1	RA-226	1.98E+02	4.52E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	6/16/2010	1	TH-234	2.04E+02	5.98E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	6/16/2010	1	TL-208	6.89E+00	2.16E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2010	1	TH-234	1.68E+02	5.45E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2010	1	RA-226	1.50E+02	3.39E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2010	1	PB-214	1.41E+01	3.59E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2010	1	BI-214	1.95E+01	3.40E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2010	1	K-40	5.37E+02	4.50E+01

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Surface Water*

*Quantity: Liters*

*Concentration (Activity): pCi/L*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
400 0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2010	1	PB-212	9.52E+00	2.63E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	7/17/2010	1	TL-208	6.24E+00	1.91E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	1	BI-214	2.15E+01	3.94E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	1	TH-234	2.38E+02	5.73E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	1	AC-228	1.26E+01	6.11E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	1	PB-214	1.98E+01	3.86E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	1	PB-212	1.45E+01	3.22E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	1	TL-208	9.48E+00	2.00E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	1	K-40	8.15E+02	6.10E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	8/17/2010	1	RA-226	1.89E+02	4.47E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	9/17/2010	1	RA-226	1.57E+02	3.80E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	9/17/2010	1	PB-214	1.69E+01	4.67E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	9/17/2010	1	BI-214	1.79E+01	3.88E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	9/17/2010	1	PB-212	8.36E+00	2.68E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	9/17/2010	1	TL-208	4.17E+00	2.02E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	9/17/2010	1	K-40	5.62E+02	4.56E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	9/17/2010	1	TH-234	2.27E+02	6.17E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	1	PB-214	9.17E+00	3.57E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	1	K-40	7.39E+02	5.94E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	1	TL-208	4.75E+00	2.39E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	1	BI-214	1.22E+01	3.97E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	1	RA-226	1.06E+02	4.43E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	1	AC-228	1.24E+01	5.48E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	1	TH-234	1.01E+02	7.80E+01
400 0.6 MI NE - INTAKE CANAL (CONTROL)	10/18/2010	1	PB-212	7.16E+00	3.26E+00
400 0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	1	PB-212	9.07E+00	3.32E+00

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Surface Water*

*Quantity: Liters*

*Concentration (Activity): pCi/L*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	1	BI-214	1.00E+01	3.90E+00
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	1	PB-214	7.26E+00	3.33E+00
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	1	RA-226	9.56E+01	4.09E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	1	K-40	8.29E+02	6.61E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	1	AC-228	2.24E+01	7.53E+00
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	1	TH-234	8.69E+01	5.88E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	11/16/2010	1	TL-208	2.71E+00	1.69E+00
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/17/2010	1	PB-214	9.15E+00	4.04E+00
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/17/2010	1	K-40	8.49E+02	6.66E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/17/2010	1	TL-208	3.53E+00	1.96E+00
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/17/2010	1	BI-214	9.27E+00	3.87E+00
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/17/2010	1	RA-226	9.48E+01	4.14E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/17/2010	1	TH-234	1.54E+02	7.12E+01
400	0.6 MI NE - INTAKE CANAL (CONTROL)	12/17/2010	1	PB-212	8.62E+00	2.90E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/16/2010	1	TL-208	4.55E+00	1.69E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/16/2010	1	K-40	3.83E+02	4.26E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/16/2010	1	TH-234	2.28E+02	7.56E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/16/2010	1	RA-226	1.79E+02	4.25E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/16/2010	1	PB-214	1.77E+01	4.33E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/16/2010	1	BI-214	1.83E+01	4.08E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	1/16/2010	1	PB-212	8.94E+00	2.72E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2010	1	RA-226	1.98E+02	4.27E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2010	1	K-40	3.22E+02	3.63E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2010	1	TH-234	1.82E+02	6.48E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2010	1	PB-214	1.41E+01	4.56E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2010	1	BI-214	1.65E+01	4.31E+00

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Surface Water*

*Quantity: Liters*

*Concentration (Activity): pCi/L*

<i><b>Sample Point</b></i>	<i><b>Sample Date</b></i>	<i><b>Quantity</b></i>	<i><b>Isotope</b></i>	<i><b>Activity</b></i>	<i><b>2 Sigma Error</b></i>	
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2010	1	PB-212	8.81E+00	2.71E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	2/15/2010	1	TL-208	6.29E+00	2.60E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2010	1	TH-234	2.17E+02	6.17E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2010	1	RA-226	1.64E+02	3.91E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2010	1	PB-214	2.57E+01	4.55E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2010	1	BI-214	2.36E+01	4.61E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2010	1	PB-212	8.75E+00	3.18E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2010	1	TL-208	3.05E+00	1.93E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	3/16/2010	1	K-40	4.22E+02	4.23E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	1	PB-214	1.34E+01	3.27E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	1	AC-228	1.66E+01	5.97E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	1	RA-226	2.13E+02	4.22E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	1	TH-234	1.98E+02	5.23E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	1	BI-214	1.51E+01	4.41E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	1	PB-212	1.38E+01	3.29E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	1	K-40	6.18E+02	5.07E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	4/16/2010	1	TL-208	6.36E+00	1.80E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	1	RA-226	1.53E+02	4.56E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	1	AC-228	1.31E+01	5.99E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	1	PB-214	6.93E+00	3.70E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	1	BI-214	9.47E+00	3.50E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	1	PB-212	9.92E+00	3.33E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	1	TL-208	3.69E+00	1.72E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	1	K-40	8.10E+02	6.54E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	5/16/2010	1	TH-234	1.50E+02	5.34E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	1	AC-228	1.52E+01	5.21E+00

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Surface Water*

*Quantity: Liters*

*Concentration (Activity): pCi/L*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	1	RA-226	1.54E+02	4.22E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	1	PB-214	7.59E+00	3.55E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	1	TH-234	1.33E+02	6.26E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	1	BI-214	1.45E+01	4.19E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	1	PB-212	9.01E+00	3.11E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	1	K-40	8.18E+02	6.42E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	6/16/2010	1	TL-208	5.99E+00	1.82E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	RA-226	1.09E+02	4.30E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	TH-234	1.21E+02	6.33E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	AC-228	1.18E+01	5.70E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	PB-214	9.32E+00	3.86E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	BI-214	9.78E+00	3.43E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	PB-212	8.79E+00	3.04E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	BI-212	2.50E+01	1.51E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	K-40	8.90E+02	6.82E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	7/17/2010	1	TL-208	3.92E+00	1.62E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	1	PB-212	8.10E+00	3.07E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	1	AC-228	1.71E+01	6.36E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	1	RA-226	1.38E+02	4.14E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	1	PB-214	1.21E+01	4.32E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	1	K-40	9.13E+02	7.13E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	1	BI-214	1.31E+01	3.96E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	1	TL-208	4.72E+00	1.99E+00
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	8/17/2010	1	TH-234	1.24E+02	5.92E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	1	K-40	5.39E+02	4.47E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	1	BI-214	2.22E+01	4.11E+00

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Surface Water*

*Quantity: Liters*

*Concentration (Activity): pCi/L*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>	
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	1	PB-212	8.36E+00	2.49E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	1	BI-212	2.20E+01	1.53E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	1	TL-208	4.14E+00	1.95E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	1	PB-214	2.36E+01	5.01E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	1	RA-226	1.96E+02	3.85E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	9/17/2010	1	TH-234	1.63E+02	5.68E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/18/2010	1	PB-212	1.01E+01	2.17E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/18/2010	1	K-40	4.03E+02	3.79E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/18/2010	1	TL-208	4.20E+00	2.03E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/18/2010	1	PB-214	1.25E+01	3.68E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/18/2010	1	RA-226	1.81E+02	3.72E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/18/2010	1	TH-234	2.37E+02	6.07E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	10/18/2010	1	BI-214	2.00E+01	4.41E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2010	1	TH-234	1.47E+02	5.65E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2010	1	RA-226	2.00E+02	3.74E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2010	1	PB-214	1.15E+01	3.63E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2010	1	BI-214	1.83E+01	4.07E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2010	1	PB-212	1.14E+01	2.43E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2010	1	K-40	5.25E+02	4.61E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	11/16/2010	1	TL-208	4.25E+00	1.94E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	1	BI-214	2.85E+01	4.55E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	1	K-40	4.90E+02	4.64E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	1	PB-212	1.63E+01	2.55E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	1	PB-214	2.85E+01	4.35E+00
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	1	RA-226	1.85E+02	4.11E+01
401	4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	1	AC-228	2.02E+01	6.97E+00

# ***BSEP Radiological Environmental Monitoring Gamma Isotopic Report***

*Media Type: Surface Water*

*Quantity: Liters*

*Concentration (Activity): pCi/L*

<b><i>Sample Point</i></b>	<b><i>Sample Date</i></b>	<b><i>Quantity</i></b>	<b><i>Isotope</i></b>	<b><i>Activity</i></b>	<b><i>2 Sigma Error</i></b>
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	1	TH-234	2.10E+02	6.76E+01
401 4.9 MI SSW - DISCHARGE CANAL @ OD PUMPS	12/17/2010	1	TL-208	6.01E+00	1.88E+00