ISO 9001:2008
Integrated Environmental Management, Inc.
Certificate No. 08.002.1

PLEXUS scientific
Plexus - IEM
Radiation-related consulting and services
IEM

7130 Minstrel Way, Suite 215, Columbia, Maryland 21045
Phone (443) 319-8055 x132 Fax (240) 631-8991
www.iem-inc.com

September 22, 2015

Nancy E. Garry, PE, ASP
HRP Associates, Inc.
1 Fairchild Square
Clifton Park, NY 12065

Re: Report of Carbon Media Disposition

Dear Ms. Garry:

Pursuant to a HRP Associates, Inc. (HRP) subcontractor agreement dated July 27, 2017, and a change order dated August 14, 2015, Plexus Scientific Corporation, d.b.a. Plexus-IEM, successfully removed, packaged, surveyed, manifested, shipped and disposed of approximately 30 tons of radioactive waste located in New York.[1] The purpose of this letter is to provide you and your client with a record of the project, and to transmit a variety of documents, including paperwork showing ownership of the waste has been transferred from your client to that of the disposal site.

Background Information

The Claremont Polychemical site, hereinafter referred to as the Site, is originally a Federal and now State-managed Superfund Site located in the hamlet of Old Bethpage, New York at 505 Winding Road. The original manufacturing site occupied an approximately 9.5-acre tract of land in a light industrial zone. The active elements of the Site are now restricted to an approximately two-acre tract that hosts an operating groundwater treatment plant.

During its operational life (1966 to 1980), the Site manufactured industrial pigments for plastics and inks. Liquid wastes generated by these manufacturing activities were disposed in one of three on-site liquid waste leaching basins while solid wastes and treatment sludges were deposited in drums or in aboveground metal tanks. These on-site storage and disposal practices eventually led to spills and discharges of organic solvents that contaminated soils and groundwater in the immediate environs of the Site. Subsequent investigations of soil and groundwater resources in the area revealed the presence of organic compounds in excess of federal and/or New York State standards. Therefore, soil and groundwater remediation actions under the Federal Superfund Program were initiated at the Site in the late 1980s and continued into the 1990s.

Over the course of its operational life, the Plant has reportedly processed over a billion gallons of water from beneath the site via an on-site groundwater treatment plant (Plant), that was in full-scale operation by February of 2000. Along with the targeted solvent-contaminated waters which the Plant

[1] On January 1, 2015, Integrated Environmental Management, Inc. (IEM) was acquired by Plexus Scientific Corporation. For more on the merger, go to http://www.iem-inc.com/january-1-2015-iem-merges-with-plexus-scientific.

remediates, natural radioactivity in soil is also drawn through the system. Specifically, the more soluble progeny of natural uranium and thorium are drawn through the treatment train and into the Plant's treatment tanks, which polished the water prior to its reintroduction into the aquifer using Granular Activated Carbon (GAC).

The polishing process was recently terminated, and removal of the tanks and the GAC within was required for future operation of the Plant. This required removal of the natural radioactivity -more precisely referred to as Naturally Occurring Radioactive Material or NORM - captured by the carbon filter media over several years of operation. The remainder of this report describes the operation and serves to transmit the necessary documentation.

Project Objective

The objective of this project was to remove and dispose of the NORM-bearing GAC in each of the tanks in a fashion that would minimize the potential for effluent discharges or contamination spread.[2] While the objective is straight-forward, the type and condition of the tanks and their contents presented a number of challenges, most of which were not identified until the on-site portion of the work began. Nonetheless, all work was completed successfully, all equipment used was released for unrestricted use.

The tanks had been inactive for several month, which allowed water retained in the GAC to slowly drain. Therefore, a secondary objective was to recover as much of the GAC as possible in a "dry" form in order to minimize water weight.[3]

Kickoff Activities

The on-site portion of the project began on August 10, 2015 and required eight business days to complete, including decontamination, survey and release of equipment used to transfer the GAC from the tanks to transport containers. The final shipment of containers to the disposal site took place on August 25, 2015. Once the field team was at the site, and prior to the start of work, radiation surveys were performed (see below), radiation safety training was provided for all members of the field team, and a briefing on the transfer procedures was given in order to resolve any heretofore unknown conditions.

GAC Removal Method

The GAC to be recovered had been in use since 2008. Settling and irregular displacement of this carbon media over time within the tanks was evident from initial observations through the upper man way of each vessel. It was also observed that compaction of the once loose, coarse-grained material had caused the tank contents to become moderately fused or "welded" together, making removal via the limited tank access points difficult for conventional transfer equipment. In addition, internal

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[2] Complete removal of the carbon was required to permit subsequent dismantling of the bank bodies and associated piping for recycling (under a separate contract). Intact removal of the tanks was not considered feasible during the short project planning phase, given the structural limitations of the Plant.

[3] The addition of water could bring the potential for increased disposal fees, and the risk that the material would not meet the disposal site's waste acceptance criteria.

piping system intrinsic to the design and function of the tanks also presented obstacles to the transfer process.

In order to maintain effluent releases and contamination to a practical minimum, the approach used to transfer the GAC to the transport containers that relied upon manual and suction (vacuum) techniques was implemented. Using a vacuum (Vactor) truck as the source of suction, and in-line vacuum boxes to capture and hold the recovered GAC, the media was evaluated *in situ* from the lower man way of each tank using disposable six-inch plastic vacuum hoses and miscellaneous hand tools. Removal of the underlying strata of the GAC allowed for a "gravity assist" during the removal process, which expedited the removal of material in and around the small access man ways.[4]

The preponderance of the GAC was successfully transferred via this methodology. However, some of the deposits in the western tank (i.e., the one furthest from the Plant's Control Room) were found to have been compacted to such an extent that physical removal of large "chunks" of carbon was necessary. Once removed from the tanks, the damp and compacted chunks were placed in a large tub below the man way access, size reduced, and then suctioned into a transport container.[5]

Approximately two-thirds of the GAC volume from each process tank was removed using the "dry" techniques and placed into two of the three staged transport containers. Due to the exceptional vacuum capability of the Vactor truck used, the recovered GAC in each of these boxes was well distributed inside the box; substantial voids and mounding at the suction outlet and inlet port ends of each box, respectively, were not encountered. Extra head space within each box that was accessible via the man way port on the top, dead center of each box, was used to dispose of daily PPE and other project-derived waste.

Remaining GAC in the tanks could not be removed using the "dry" techniques. These were positioned largely on the opposite sidewalls and lower conically-shaped bottom of the tanks where an extensive system of piping was situated. In order to mobilize the remaining material, high-pressure water jets were applied to break up and fluidize the GAC. All material removed via this methodology was transferred to the third transport container.

The third container was identical in design to the prior two containers, with the exception of temporary modifications installed to facilitate the removal of as much water as possible. An expendable PVC water recovery system that included a vertical standpipe and horizontal recovery line was constructed inside this container. A series of perforations in the PVC lines were created to collect water from the recovery process. These water inlet "eyes" were subsequently overlain by fine and gross filter materials to hold back GAC fines. The water recover system was then placed through the upper man way and into the center and lower interior extremes of the box. The box was

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[4] This process was performed outside of the tanks, meaning no confined space entries were required.

[5] The size-reduction step was necessary in order to prevent clogging of the vacuum hose and subsequent air flow reductions. Nonetheless, periodic clearing and purging of the hoses were necessary to prevent deposits of loose GAC from accumulating on the corrugated walls of the vacuum hoses.

then positioned such that the vacuum inlet end of the container was lower than the opposing (exhaust) end of the container to facilitate the movement of water into the recovery system.

At the end of the project, both tanks and the piping system were repeatedly washed to ensure all assessable GAC deposits were removed. Accumulated water from the third transport container was pumped, over the course of several days using the Plant's positive displacement pump, and into the Plant's filter press system before discharge into an exterior sump for subsequent treatment. After the water removal process was complete, the filter cake was placed into a transport container, along with approximately three 55-gallon drums of staged filtercake that had been containerized by Plant personnel before the start of this project.

The field team's final assignment, at HRP's request, was to evacuate the contents of the external sump. Over time, this large sump also accumulated GAC deposits during the course of normal plant operations. The GAC and other debris recovered from the sump were deposited into a transport container.

Transport and Disposal

The GAC in each of the treatment tanks was generally well distributed between the three transport containers. Once loaded, they were inspected, surveyed and labeled. The Bills of Lading were finalized and the vehicles were released.

The containers arrived at the disposal site without incident, where the weights of the container contents was confirmed. The following is a summary of the transport and disposition:

Vac Tank ID	Date Filled	Date Shipped	Date Received at Disposal Site	Net Weight (lbs. / tons)
B8002 - Dry	8/12/15	8/12/15	8/18/15	14,780 / 7.39
V3060 - Dry	8/14/15	8/25/15	8/31/15	13,400 / 6.7
B8001 - Wet	8/18/15	8/25/15	8/31/15	29,520 / 14.67

Radiation Surveys

Pre- and post-operational radiation surveys of the work areas and box staging area were performed to ensure contamination was appropriately controlled. Likewise, pre-and post surveys of non-disposable equipment, including the Vactor trucks and hand tools used, were also performed. Finally, radiation surveys of the transport containers were also performed before they were filled with GAC. In all cases, the post-work survey results did not differ significantly from the baseline results, and all were well-below conservatively-derived release criteria promulgated by the U. S. Nuclear Regulatory Commission and subscribed to by the New York Department of Health.

Project Documentation

Detailed site operations notes and other relevant site and waste documentation have been appended to this report. These documents provide specific information on the actions taken on-site, and

associated with the transport of the waste to a permitted radioactive waste disposal facility. The following is a listing of the documents:

- Key Personnel Qualifications (Attachment A)
- Radiation Safety Training Documentation (Attachment B)
- Daily Tailgate Safety Training Forms (Attachment C)
- Instrumentation Records Records (Attachment D)
- Field Activity Daily Logs (Attachment E)
- Radiation Survey Records (Attachment F)
- Executed Waste Profile from the Disposal Site (Attachment G)
- Shipping Documentation (Attachment H)

Documentation of Ownership Transfer
The GAC was shipped to U. S. Ecology in Grand View, Idaho for processing and disposal. Attachment I contains the Certificate of Disposal showing that ownership of the material has been transferred from your client to U. S. Ecology. Your client will need to maintain a copy of this report, in its entirety, as proof of material disposition.

It has been our pleasure assisting HRP and its client in the disposition of the GAC from the water treatment tanks at the Claremont site. In spite of having less than one month between authorization to proceed and when HRP required the on-site effort to be complete, the radioactive waste was safely removed and disposed of without radiological impact to the Plant or personnel. We thus conclude that the project objectives were met.

If you have any questions, or if we can be of service on this or any other radiation-related matter, please don't hesitate to call me at (571) 527-1617. I look forward to speaking with you again soon.

Sincerely,

Steven J. Baker,
Project Manager

cc: C. D. Berger
File 8284-18A

ATTACHMENT A
Key Personnel

Integrated Environmental Management, Inc.
A Plexus Company

Steven J Baker

Health Physics Specialist

Years of Experience

IEM: 02 Total: 35

Office Location

Alexandria, Virginia

Education

B.A. Geography, U. of So. Cal, 1980

Employment History

2015—IEM, a Plexus Company

2013-2014 – Integrated Env. Mgmt. (IEM)

2003-2012 – BMT- D&P

1994-2003 – Entech - BMT Entech

1990-1994 – Halliburton NUS/Brown & Root

1990 – Geo/Resources Consult.

1986-1990 – Greenhorn & Omara

1980–1986 – Bionetics Corp

Licenses/Registrations

N/A

Security Clearance

Secret clearance - CIA, effective 05 March, 1993. Status: Inactive.

TS/SCI w/ SBI, issued 15 June, 1987. Status: Inactive.

General Qualifications

Mr. Baker is a project manager and radiation protection specialist with over 20 years of professional experience in RCRA/CERCLA environmental site investigations, waste removal actions, and site remediation tasks. He has particular expertise in orchestrating complicated logistical tasks, developing detailed project documentation, researching and identifying historical records, and interfacing with clients and Federal/State/ Local regulatory authorities. He is also experienced in evaluating regulatory requirements, developing working relationships with clients and regulators and achieving/negotiating compromise between opposing points of view. In addition, Mr. Baker has extensive background in applying historical aerial photography as a site investigation tool.

Summary of Capabilities

- Project Management
- Task Management
- Field Investigations
- Historical Aerial Photo Analysis
- RCRA Regulatory Support Services

Credentials

- 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training (OSHA 29 CFR 1910.120), 1991
- Annual 8-hour HAZWOPER Refresher Training (OSHA 29 CFR 1910.120), 1992 - 2015
- Confined Space Training (OSHA 29 CFR 1910.146), 1997, 2008
- Project Management Training, 2012
- American Heart Association First Aid, CPR, and AED Training, renewed 2012
- Environmental Regulatory Audit Training, 1995
- Resource Conservation and Recovery Act (RCRA)/Superfund Industry Assistance Hotline Training (six-week training course), 1990.

Professional Experience

Project Management – Mr. Baker serves as a Project Manager for environmental projects and programs in support of past and present employer's federal clients. Responsible for the technical and financial performance of projects and site-specific tasks, provides oversight for field managers engaged in client work and, as necessary, participate in field activities where/when called upon. Duties also include interacting with client representatives and regulatory entities, identifying subcontractors and related support entities/activities, developing proposals, and estimating project costs in bidding environments.

Relevant Experience Example

Project Manager (PM) responsible for directing RCRA and CERCLA-associated investigations of USDA's (subsequently DHS's) Plum Island Animal Disease Center, Long Island, New York. These duties, which span a 10-year period of service, included managing long-duration RCRA and CERCLA investigation and removal projects in the field and directing field personnel and subcontractors in the successful completion of tasks at this high profile site. In a related site program, Mr. Baker served as the PM responsible for surveying structural conditions and recommending decontamination technologies for the decommissioning of a long abandoned Biological Safety Level -3 (BSL-3) laboratory at PIADC known as Building 257.

Task Management & Field Investigations - Mr. Baker has long experience serving in a field manager capacity on a wide variety of investigative site tasks. These primarily include investigation and removal tasks at RCRA/CERCLA chemical contamination sites, assessment and removal operations in biological hazard settings, conducting radiological surveys at industrial facilities, evaluating and collecting archival documentation/records surveys for baseline project purposes. These responsibilities also typically required managing the activities of various-sized teams of field personnel, managing client requirements/expectations, and acting as liaison between client and regulatory representatives during on- and off-site oversight visits and formal data/findings review proceedings.

Relevant Experience Examples

Mr. Baker has been directly involved in conducting field investigations involving groundwater, surface and subsurface soil, and sediment media at a variety of RCRA and CERCLA sites over the course of two decades. Many of the more unusual task and field investigation events occurred at the Plum Island Animal Disease Center, New York where biological hazards and investigation campaigns required the imposition of unusual protective protocols to guard against potential biological contamination and agent release hazards/threats. More recently, Mr. Baker has been engaged in conducting radiological surveys designed to document free- release of client's real property during decommissioning projects at several mostly commercial industrial facilities.

Other relevant task and field investigation experiences include participating in initial CERCLA investigatory activities at the 6,000-acre USDA Agricultural Research Service (USDA/ARS)

Headquarters in Beltsville Maryland, serving as a mid-level field sampling team leader at a U.S. Army RCRA investigation site in Indiana, conducting compliance audits for several USDA facilities, and undertaking historical aerial imagery assessments at numerous Formally Utilized Defense Sites (FUDS) under contract to other consultants supporting US Army Corps of Engineer (USACOE) Districts.

Historical Aerial Photo Analyses - Mr. Baker has long experience in both the classified and unclassified environs of aerial and satellite imagery analyses. Skills and techniques developed during this period of his profession service were used, in the environmental field, to identify and delineate physical details regarding long abandoned or misidentified waste disposal units in various public and private property settings.

Relevant Experience Example

Imagery Analyst involved in hundreds of in-depth air photo interpretation studies and reviews of CERCLA "Superfund" waste disposal sites and U.S. Army installations. These studies, conducted under contract with the US Environmental Protection Agency (EPA), were based on the use and interpretation of historical aerial photographs and supplemental collateral site data. These studies were created to assist state and Federal environmental agencies in documenting and identifying past site activity found to pose a threat to human health and the environment. These reports were also used as exhibits in litigation efforts conducted by the Federal government. In subsequent years, these same skills were applied to site investigations of past and present employer's client sites where questions regarding historical waste disposal practices were uncertain or undocumented. These investigations provided extensive "baseline" information regarding site conditions and informed the development of effective field inspection and investigation programs that followed. Additional duties and responsibilities associated with these services included occasional service as an expert fact witness in litigation settings.

RCRA Regulatory Support Services - Mr. Baker served in the past as a RCRA regulatory specialist in a public outreach program sponsored by the US EPA. This program was designed to assist and educate the public and private sector individuals having responsibilities for solid waste (hazardous and non-hazardous) management and correctly applying federal regulations governing their generation, storage, and ultimate disposal. The program also served to inform members of the general public about waste issues generally and potential health and safety impacts specifically.

Relevant Experience Example

Mr. Baker served as an Information Specialist/Environmental Consultant for EPA's RCRA Superfund Industrial Assistance Hotline. This position required extensive training and independent research and reading of pertinent RCRA and CERCLA statutes and regulatory rulemakings as well as large collections of regulatory interpretive memos and policy statements in order to become proficient in understanding and conveying information to interested parties

seeking information on these environmental programs. Upon completion of the training program, duties centered on providing prompt, accurate, and factual information concerning the regulatory programs to callers of diverse backgrounds and varying degrees of regulatory knowledge. The position also required continual review of new regulatory and support data, development and maintenance of personal research/reference files, research into difficult caller questions that could not be immediately addressed over the phone, interaction with EPA's technical, legal, and policy research staff, and development and maintenance of specialty area files for the hotline's central research library

Integrated Environmental Management, Inc.
A Plexus Company

Jeffrey W. Sumlin

Health Physicist

Years of Experience

Plexus: 01 Total: 35

Office Location

Columbia, Maryland

Education

AA –Nuclear Technology, U. of Phoenix, 1991

BS –Nuclear Technology/Sociology, Excelsior College, 1990

AS –Liberal Arts, Excelsior College, 1989

Naval Nuclear Power School, 1980

Employment History

2015 — Plexus Scientific Corporation

2014 – 2015 – Integrated Environmental Management

2007 – 2014 – Chicago Bridge & Iron

2006 – 2007 – Integrated Environmental Management

2004 – 2005 – Oak Ridge National Laboratory

2001 – 2004 – Sandia National Laboratory

1995 – 2001 – Pacific Northwest Laboratory

1980 – 1995 – US Navy

Licenses/Registrations

National Registry of Radiation Protection Technologists

Professional Affiliations

National Registry of Radiation Protection Technologists (RRPT)

Security Clearance

DOE Q/PSAP-inactive and US Navy Secret-inactive

General Qualifications

Mr. Sumlin has over 35 years of experience in the radiation protection field, with emphasis on decontamination, site surveillance and applied health physics. His extensive field and management experience, interpersonal skills, and technical abilities in the decontamination, decommissioning, and radiation protection fields are accompanied by excellent qualifications in project coordination, regulatory compliance, site characterization and radiological oversight and verification.

Summary of Capabilities

- Program Management
- Radiological Field Investigations
- Radiation Training
- Radiation Transport
- Instrumentation

Credentials

- Basic and Advanced Hazardous and Radioactive Waste Shipper Training, 2014
- 40-Hour OSHA HAZWOPER Training (29 CFR 1910.120), 1996
- 8-Hour OSHA Annual Refresher (29 CFR 1910.120), 2015
- Nuclear Power Training Unit (prototype), 1981

Professional Experience

Program Management.
Served as a Program Manager for numerous environmental and infrastructure programs with emphasis on decontamination, site surveillance and applied health physics. His extensive field and management experience, interpersonal skills, and technical abilities in the decontamination, decommissioning, and radiation protection fields are accompanied by excellent qualifications in project coordination, regulatory compliance, site characterization and radiological oversight and verification.

Radiological Field Investigations
Mr. Sumlin has over 35 years of experience in the radiation protection field, with emphasis on site surveillance, applied health physics, decontamination, decommissioning, regulatory compliance, site characterization and radiological oversight and verification.

Radiation Training
Mr. Sumlin is current with his 40-Hour OSHA HAZWOPER Training and 8-Hour OSHA Annual Refresher training. His training began in 1980 with Naval Nuclear Propulsion training and continued through DOE Radiological Controls training and as an Authorized User - Maryland Department of the Environment Radioactive Materials License No. MD-31-281-01

Radiation Transport
Mr. Sumlin is trained and qualified as a Basic and Advanced Hazardous and Radioactive Waste Shipper.

Instrumentation
Mr. Sumlin is proficient in radiation detection instrument calibration, use, troubleshooting and repair.

Relevant Projects

Chicago Bridge & Iron as a Site Supervisor, Quality Assurance Inspector, Radiological Controls Supervisor and Decontamination and Demolition Supervisor. Duties include training, qualification and supervision of Radiological Workers and Radiological Controls Technicians; structure and environmental sampling, characterization, remediation and final status surveys; job planning and scheduling; radioactive and mixed waste packaging and disposal; generating and approving legal records of survey and calibration; interfacing with the EPA, DOE, NRC and DOD on radiological and safety issues. He tracked and trended the daily quality assurance performance tests of radiological field and laboratory instruments, including the custody of radioactive check sources, ensuring NIST traceability and the proper documentation necessary to certify their pedigree. Following Hurricane Sandy, he volunteered for the New York City Rapid Repairs Program where he performed quality assurance inspections on repairs to commercial property and private residences. This included initial damage assessment, verifying worker qualifications, site safety, tracking installed material, equipment operational test, final verification of completed repairs and budget tracking and analysis.

2006 – 2007 Integrated Environmental Management, Inc. as Project Manager and Senior Health Physics Technician. Duties included surveillance activities; site characterization, generating and approving legal records of survey and calibration; report preparation; cost/schedule assessment; NRC license compliance audits; MARSSIM Final Status Surveys for nuclear license termination; report preparation and briefings.

2004 – 2006 Oak Ridge National Laboratories as a Lead Senior Radiological Controls Technician. Duties included environmental remediation of abandoned radioactive injection wells; transuranic legacy waste recovery, packaging and shipment; generating and approving legal records of survey and calibration.

2001 – 2004 Sandia National Laboratories as a Senior Radiological Controls Technician supporting Decontamination and Demolition and the Radioactive and Mixed Waste Management Facility. Duties included final status survey on over 500,000 square feet of structures prior to demolition; radiological oversight during waste segregation and packaging; generating and approving legal records of survey and calibration.

1995 – 2001 Hanford Site Health Physics Department as a Senior Health Physics Technician, ALARA Coordinator, Radioactive Source Custodian, and First Line Supervisor for various DOE contractors and projects. Duties included implementing processes that resulted in a 10% reduction of personnel exposure at the Plutonium Finishing Plant, maintaining custody and control of six curies of radioactive sources; supervision of Radiation Workers and Radiological Controls Technicians at the East and West Tank Farms; generating and approving legal records of survey and calibration.

1980 – 1995 US Navy Nuclear Propulsion and Radiological Controls Program, including positions as Mechanical Operator, Engine Room Supervisor, Engineering Watch Supervisor, Radiological Controls Shift Supervisor, Duty Supply Officer, Nuclear Weapons Accident and Incident Radiological Controls Supervisor and Quality Assurance Supervisor. Duties included conducting military, professional and radiological training; nuclear propulsion plant operation and supervision; damaged nuclear weapons radiological assessment and recovery; generating and approving legal records of operating equipment logs, survey and calibration.

ATTACHMENT B
Radiation Safety Training Documentation

GENERAL EMPLOYEE TRAINING IN RADIATION PROTECTION

Name (Print):	PAUL M. SULLIVAN
Signature:	
Today's Date:	08/10/15

I have received a copy of the handout entitled "General Employee Training in Radiation Protection".

I agree to comply with the safety requirements contained in the handout.

I understand that I may contact the project Radiation Safety Officer at any time to discuss any radiation safety issue that may arise.

I will not enter any controlled access area unless escorted, or unless I have been permitted to do so by the Radiation Safety Officer.

Individual administering briefing: Jeffrey W. Sumlin, RRPT

Signature:_____ Date: 8/10/15

Project Radiation Safety Officer: Jeffrey W. Sumlin, RRPT

Signature:_____ Date: 8/10/15

Project Manager: Steven J. Baker

Signature:_____ Date: 8/10/15

GENERAL EMPLOYEE TRAINING IN RADIATION PROTECTION

Name (Print):	Jonathan D. Napoli
Signature:	
Today's Date:	8-10-15

I have received a copy of the handout entitled "General Employee Training in Radiation Protection".

I agree to comply with the safety requirements contained in the handout.

I understand that I may contact the project Radiation Safety Officer at any time to discuss any radiation safety issue that may arise.

I will not enter any controlled access area unless escorted, or unless I have been permitted to do so by the Radiation Safety Officer.

Individual administering briefmg: Jeffrey W. Sumlin, RRPT

Signature:_____ Date: 8/10/15

Project Radiation Safety Officer: Jeffrey W. Sumlin, RRPT

Signature:_____ Date: 8/10/15

Project Manager: Steven J. Baker

Signature:_____ Date: 8/10/15

GENERAL EMPLOYEE TRAINING IN RADIATION PROTECTION

Name (Print):	TED SADOWSKI JR
Signature:	
Today's Date:	8/10/15

I have received a copy of the handout entitled "General Employee Training in Radiation Protection".

I agree to comply with the safety requirements contained in the handout.

I understand that I may contact the project Radiation Safety Officer at any time to discuss any radiation safety issue that may arise.

I will not enter any controlled access area unless escorted, or unless I have been permitted to do so by the Radiation Safety Officer.

Individual administering briefing: Jeffrey W. Sumlin, RRPT

Signature: _____ Date: 8/10/15

Project Radiation Safety Officer: Jeffrey W. Sumlin, RRPT

Signature: _____ Date: 8/10/15

Project Manager: Steven J. Baker

Signature: _____ Date: 8/10/15

GENERAL EMPLOYEE TRAINING IN RADIATION PROTECTION

Name (Print):	DAVID RICE
Signature:	
Today's Date:	8-10-15

I have received a copy of the handout entitled "General Employee Training in Radiation Protection".

I agree to comply with the safety requirements contained in the handout.

I understand that I may contact the project Radiation Safety Officer at any time to discuss any radiation safety issue that may arise.

I will not enter any controlled access area unless escorted, or unless I have been permitted to do so by the Radiation Safety Officer.

Individual administering briefing: Jeffrey W. Sumlin, RRPT

Signature: _____ Date: 8/10/15

Project Radiation Safety Officer: Jeffrey W. Sumlin, RRPT

Signature: _____ Date: 8/10/15

Project Manager: Steven J. Baker

Signature: _____ Date: 8/10/15

ATTACHMENT C
Daily Tailgate Safety Training Forms

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
TAILGATE SAFETY MEETING DOCUMENTATION

Facility/Location:	CLAREMONT WWTP		
Date: 8.10.15	Time: 0730	Job Number: 8284-18A	
Client Name:	HRP ASSOCIATES		
Address of Work Site:	505 WINDING ROAD, OLD BETHPAGE, NY		
Type of Work	REMOVAL ACTION		
Hazardous/Radioactive Materials Used:	Removed: granular activated carbon (GAC		

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment:	STD WORK ATTIRE (LEVEL D)	
Chemical Hazards:	NONE	
Radiological Hazards:	TENORM	
Physical Hazards:	S/T/F	
Emergency Procedures:	911 2150 Emergency hospital map	
Hospital/Clinic:	Phone:	Paramedic Phone:
Hospital Address	SEE MAP	
Special Equipment:	NONE	
Other:	VAC Sub may decide to wear full face APR 25 a option/ safety measure	

ATTENDEES

NAME PRINTED	SIGNATURE
TED SADOWSKI JR	
DAVID RICE	
JON DINAPOLI	
PAUL M. SULLIVAN	
PETER TARKACH	
JAMES S JACKSON	

Meeting Conducted by:	JEFF SUMLIN / STEVE BAKER
Signature:	

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
TAILGATE SAFETY MEETING DOCUMENTATION

Facility/Location: CLARMONT POLYCHEMICAL SITE		
Date: 8.11.15	Time: 0820	Job Number: 9284-18A
Client Name: HRP Associates		
Address of Work Site: 505 WINDING ROAD OLD BETHPAGE, NY		
Type of Work: GAC REMOVAL		
Hazardous/Radioactive Materials Used: TENORM		

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment: LEVEL D		
Chemical Hazards: NONE		
Radiological Hazards: TENORM		
Physical Hazards: S/T/F, Vacuum pressure		
Emergency Procedures: SEE Hospital MAP - 911		
Hospital/Clinic:	Phone:	Paramedic Phone:
Hospital Address		
Special Equipment: Respirators may be worn as an option by WOSI staff as an optional precaution - Respiratory protection deemed unnecessary		
Other: for this work.		

ATTENDEES

NAME PRINTED	SIGNATURE
Steve Baum	[signature]
TED SADOWSKI JR	[signature]
PAUL SULLIVAN	[signature]
Jim DiNapoli	[signature]
Jeff Swan	[signature]
Jen Kotz	[signature]
PETER TAMACH	[signature]

Meeting Conducted by:	STEVE BAUM
Signature:	[signature]

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
TAILGATE SAFETY MEETING DOCUMENTATION

Facility/Location:	CLARMONT POLYCHEMICAL		
Date: 8.12.15	Time: 0900	Job Number: 8284-18A	
Client Name:	HRP Associates		
Address of Work Site:	505 WINDING ROAD, OLD BETHPAGE, NY		
Type of Work	GAC Removal		
Hazardous/Radioactive Materials Used:	HANDLED: TENORM GAC		

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment:	LEVEL D + face shields		
Chemical Hazards:	NONE		
Radiological Hazards:	NORM		
Physical Hazards:	S/T/F, VACUUM PRESSURES, HEAVY HND TOOLS		
Emergency Procedures:	911 - 2/50 Hospital Map		
Hospital/Clinic:	Phone:	Paramedic Phone:	
Hospital Address	SEE MAP		
Special Equipment:	USE equipment/line/pressure		
Other:	WOSI asks not to use APR systems. Initially Thought they would, but term decides it is more of a fatigue/safety issue. No resp hzard per Ian 2/19/15		

ATTENDEES

NAME PRINTED	SIGNATURE
PAUL M SULLIVAN	
TED SOJOWSKI JR	
Jeff James	
John Baum	

Meeting Conducted by:	John Baum
Signature:	

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
TAILGATE SAFETY MEETING DOCUMENTATION

Facility/Location:	CLAREMONT POLYCHEM SITE		
Date:	August 13th 2015	Time: 0640	Job Number: 8284-18A
Client Name:	HRP Associates		
Address of Work Site:	505 Winding Road, Old Bethpage, NY		
Type of Work	GAC removal from 2 process tanks		
Hazardous/Radioactive Materials Used:	Removed: TENORM		

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment:	LEVEL D	
Chemical Hazards:	NONE	
Radiological Hazards:	NORM	
Physical Hazards:	S/T/F, PRESSURE (VACUUM)	
Emergency Procedures:	911 / Hospital / MAP (posted)	
Hospital/Clinic:	Phone:	Paramedic Phone:
Hospital Address	SEE HOSPITAL MAP	
Special Equipment:	VAC TRUCK SYSTEM	
Other:		

ATTENDEES

NAME PRINTED	SIGNATURE
Jon DiNapoli	J-DiNapoli
TED SADOWSKI JR	
PAUL SULLIVAN	PMSull
STEVE BAKER	

Meeting Conducted by:	STEVE BAKER
Signature:	

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
TAILGATE SAFETY MEETING DOCUMENTATION

Facility/Location:	CLAIRMONT POLYCHEMICAL SITE	
Date: 8.14.15	Time: 0700	Job Number: 8284-18A
Client Name:	HRP Associates	
Address of Work Site:	505 Winding Road	
Type of Work	GAC removal	
Hazardous/Radioactive Materials ~~Used:~~	handled & TENORM	

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment:	Level D	
Chemical Hazards:	None	
Radiological Hazards:	NORM	
Physical Hazards:	S/T/F, Vacuum pressure, heavy handtools	
Emergency Procedures:	911 / Hospital MAP	
Hospital/Clinic:	Phone:	Paramedic Phone:
Hospital Address	See MAP	
Special Equipment:	Vac system	
Other:		

ATTENDEES

NAME PRINTED	SIGNATURE
Stan Baker	
Paul Sullivan	
Ted Sadowski Jr	
Jon DiNapoli	

Meeting Conducted by:	Stan Baker
Signature:	

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
TAILGATE SAFETY MEETING DOCUMENTATION

Facility/Location:	CLARMONT POLYCHEM		
Date: 8-17-15	Time: 0700	Job Number: 3284-18A	
Client Name:	HRP ASSOC.		
Address of Work Site:	505 WINDMP ROAD, OLD BETHPAGE, NY		
Type of Work	GAC REMOVAL		
Hazardous/Radioactive Materials ~~Used~~:	HAZWOPER NORM		

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment:	LEVEL D	
Chemical Hazards:	VOC's	
Radiological Hazards:	TENORM	
Physical Hazards:	S/T/F, Pressurized water	
Emergency Procedures:	911 / Hospital / MAP	
Hospital/Clinic:	Phone:	Paramedic Phone:
Hospital Address	SEE MAP	
Special Equipment:	Pressure washer, Vacuum systems	
Other:		

ATTENDEES

NAME PRINTED	~~SIGNATURE~~
STEVE BARNES	
PAUL M SULLIVAN	
TED SADOWSKI JR	
JOE DIVITO	

Meeting Conducted by:	
Signature:	

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
TAILGATE SAFETY MEETING DOCUMENTATION

Facility/Location:	CLARMONT POLYCHEM	
Date: 8-18-15	Time: 0700	Job Number: 8284-18A
Client Name:	HRP ASSOCIATES	
Address of Work Site:	505 WINDMP ROAD OLD BETHPAGE, NY	
Type of Work	GAC REMOVAL	
Hazardous/Radioactive Materials ~~Used~~:	HANDLED: NORM	

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment:	LEVEL D		
Chemical Hazards:	NONE		
Radiological Hazards:	TENORM		
Physical Hazards:	SIT/F; High pressure H20; Heat Stress		
Emergency Procedures:	911; Hospital Map		
Hospital/Clinic:	Phone:	Paramedic Phone:	
Hospital Address	SEE MAP		
Special Equipment:	High pressure hose, Vacuum systems		
Other:			

ATTENDEES

NAME PRINTED	SIGNATURE
PAUL M SULLIVAN	PAUL Sull
Jon DiNapoli	J DiNapoli
TED SADOWSKI JR	Ted Sadowski
Steve Baker	Steve Baker

Meeting Conducted by:	STEVE BAKER
Signature:	Steve Baker

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
TAILGATE SAFETY MEETING DOCUMENTATION

Facility/Location:	CLAREMONT POLYCHEMICAL		
Date: 8.19.15	Time: 0645	Job Number:	8284-18A
Client Name:	HRP Associates		
Address of Work Site:	505 WINDING ROAD OLD BETHPAGE, NY		
Type of Work	GAC REMOVAL		
Hazardous/Radioactive Materials ~~Used~~ handled:	NORM		

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment:	LEVEL D	
Chemical Hazards:	NONE	
Radiological Hazards:	TENORM	
Physical Hazards:	S/T/F, High Pressure	
Emergency Procedures:	911 / Hospital MAP	
Hospital/Clinic:	Phone:	Paramedic Phone:
Hospital Address	SEE MAP	
Special Equipment:	Vacuum systems	
Other:		

ATTENDEES

NAME PRINTED	SIGNATURE
Steve Bauer	Steve Bauer
PM Sullivan	PM Sullivan
TED SADOWSKI JR	Ted Sadowski
J. Pinelli	J. Pinelli

Meeting Conducted by:	STEVE BAUER
Signature:	Steve Bauer

ATTACHMENT D
Instrumentation Records

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 12 NS SERIAL# 121268

Owner: IEM

DATE: 10/30/14 **LOCATION:** Griffin Inst

TECH: D.Steimel **DATE LAST CAL EXPIRES:** 10/14/14

Reason For Calibration: (•) Due For Calibration ( ) Repair (See Remarks) ( ) Other (See Remarks) ( ) Due and Repair (See Remarks)

NIST TRACEABLE EQUIPMENT USED DURING CALIBRATION

MODEL: M-500 **SERIAL #:** 134715 **CAL. DUE:** 11/26/14

MODEL: **SERIAL #:** **CAL DUE:**

[x] Fast/Slow Switch working properly [x] Audio Response [x] Geotropism **CABLE LENGTH** 39"

CONDITION: Worn **AF MECHANICAL ZERO:** 0 **AL MECHANICAL ZERO:** 0

NEW BATTERIES: ( ) Yes (•) No **BATTERY CHECK:** Sat

HV RANGE 400 - 1500 VOLTS (•) N/A ( ) Sat ( ) Unsat

HV (+/-10%)		AS FOUND HV	AS LEFT HV
500 V:		500	A.F.
1250 V:	1000 V for 177s	1245	A.F.
2000 V:	1500 V for 177s	2000	A.F.

AF INPUT SENSITIVITY (mV): 35 **AL INPUT SENSITIVITY (mV) :** A.F.

RATE METER / SCALER

SCALE	RATE CPM	AS FOUND		% ERROR	AS LEFT	% ERROR	AS FOUND	% ERROR	AS LEFT	% ERROR
x.1 or x1	100	100		0.0%	A.F.					
	250	250		0.0%	A.F.					
	400	400		0.0%	A.F.					
x1 or x10	1000	1000		0.0%	A.F.					
	2500	2500		0.0%	A.F.					
	4000	4000		0.0%	A.F.					
x10 or x100	10K	10	K	0.0%	A.F.					
	25K	25	K	0.0%	A.F.					
	40K	40	K	0.0%	A.F.					
x100 or x1000	100K	100	K	0.0%	A.F.					
	250K	250	K	0.0%	A.F.					
	400K	395	K	1.3%	A.F.					

Is the As Found Data Within 20% of the Set Point?: (•) Yes ( ) No

REMARKS:

Does Instrument Meet Final Acceptance Criteria?: (•) Yes ( ) No

Calibration Sticker Attached?: (•) Yes ( ) No

Date Instrument is Due For Next Calibration: **10/30/15**

INSTRUMENT MARRIED WITH 44-9 **# PR131864**

Performed/Reviewed by: D.Steimel **Date:** 10/30/2014 **Entered by:** DS **Initials**

Calibrations performed to ANSI N323A-1997 standards.

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 44-9 PROBE # PR131864

IEM143

Owner: IEM

DATE: 10/30/14 LOCATION: Griffin Inst

TECH: D. Steimel DATE LAST CAL EXPIRES: 10/14/14

REASON FOR CALIBRATION:

(●) Due For Calibration ( ) Repair (See Remarks) ( ) Other (See Remarks) ( ) Due and Repair

CABLE LENGTH: 39" INPUT SENSITIVITY: 35mV

NIST TRACEABLE EQUIPMENT USED DURING CALIBRATION

MODEL:	SERIAL #:	CAL. DUE:
2221	196059	07/17/15

NIST TRACEABLE SOURCES USED

Source Number	Isotope	4 pi Activity	Assay Date	2 pi Activity
99TC470-1814	Tc99 SS	31,330 dpm	05/27/14	19,600 cpm
2697-00	Sr90	12,200 dpm	03/01/00	8,530 cpm

PHYSICAL CONDITION: Sat EFF. FROM LAST CAL.: 15.04% BKG: 56 HV 900V

AF CPM Tc99: 5450 5451 5404 AVG: 5435.0 AF Sr90 CPM: 2755

Tc99 4 pi EFF: 17.17% Sr90 4 pi EFF: 31.43%

Tc99 2 pi EFF: *27.44%* *Sr90 2 pi EFF:* *44.95%*

AL CPM Tc99: AVG: AL Sr90 CPM:

TC-99 4 pi EFF: Sr90 4 pi EFF:

Tc99 2 pi EFF: *Sr90 2 pi EFF:*

Is the as found efficiency within 20% of eff. from last cal.?	(●) Yes	( ) No *See Remarks
Saturation Test Satisfactory	(●) Yes	( ) No
Reproducibility: Are the individual counts within 10% of the average?	(●) Yes	( ) No
Does the probe meet final acceptance criteria?	(●) Yes	( ) No
Calibration sticker attached?	(●) Yes	( ) No

Remarks:

DATE PROBE IS DUE FOR NEXT CALIBRATION: 10/30/15

INSTRUMENT MARRIED WITH 12 NS # 121268

Performed/Reviewed by: D. Steimel Date: 10/30/2014 Entered by: DS Initials

Geometry: Flat surface unless otherwise stated. 2 pi efficiencies italicized.

Calibrations performed to ANSI N323A-1997 standards

RSP-008, ATTACHMENT 8.17

CONTAMINATION SURVEY INSTRUMENT DAILY (QC) CHECK SHEET

GENERAL INFORMATION:	
Client Name:	HRP
Project No:	8284-18A
Meter Model No.:	12
Meter SN	121268
Probe Model No.:	44-9
Probe SN	PR131864
Detector Area (cm2):	15.51
Background Location:	High Bay
Count time (min)	1
Alpha Check Source No:	N/A
Radionuclide:	N/A
Activity (dpm):	N/A
Efficiency (c/d):	N/A
Beta Check Source No:	2398-98
Radionuclide:	Tc-99
Activity (dpm):	19200
Efficiency (c/d):	0.1717

[area = 100 for smear counter]

Date	Units	Start of Shift Background (alpha)				Start of Shift Background (beta)				Daily Average		Source Check (alpha)		Source Check (beta)		MDA (dpm)		Entered by:	2σ Alpha Flag	2σ Beta Flag	3σ Alpha Flag	3σ Beta Flag
		1 (counts)	2 (counts)	3 (counts)	Average (cpm)	1 (counts)	2 (counts)	3 (counts)	Average (cpm)	Alpha (cpm)	Beta (cpm)	Source (counts)	Eff. (c/d)	Source (counts)	Eff. (c/d)	Alpha	Beta					
8/10/2015	cpm				#DIV/0!	40	40	40	40	#DIV/0!	40		#VALUE!	2800	0.15	#DIV/0!	1107	JWS	#VALUE!		#VALUE!	
8/11/2015	cpm				#DIV/0!	40	40	40	40	#DIV/0!	40		#VALUE!	2800	0.15	#DIV/0!	1107	JWS	#VALUE!		#VALUE!	
8/12/2015	cpm				#DIV/0!	40	40	40	40	#DIV/0!	40		#VALUE!	2800	0.15	#DIV/0!	1107	JWS	#VALUE!		#VALUE!	
8/13/2015	cpm				#DIV/0!	50	40	40	43	#DIV/0!	43		#VALUE!	2700	0.14	#DIV/0!	1152	sjb	#VALUE!		#VALUE!	

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 19 SERIAL# 182678

Owner: IEM

DATE: 04/23/15 **LOCATION:** Griffin Inst

TECH: E.M. Glenn **DATE LAST CAL EXPIRES:** 04/14/15

REASON FOR CALIBRATION: Due for Calibration

NIST TRACEABLE EQUIPMENT AND SOURCES USED DURING CALIBRATION

PULSER MODEL: 500 PULSER SERIAL: 114512 PULSER CAL DUE: 10/15/15

SOURCE NUMBER: 10250 ISOTOPE: Cs137 ASSAY DATE: 02/04/15

☑ **Fast/Slow Switch working properly** ☑ **Audio Response** ☑ **Geotropism** **AF HV:** 650V **AL HV:** 750V

Input Sensitivity: 34 mV TEMP: 67.6 **F** BARO PRESS: 29.15" HUMIDITY: 29%

Desired Reading		A.F.Data	A.F. % ERROR	A.L.Data	A.L. % ERROR
4 mR/hr	5000 Scale	3.55	11.3%	3.8	5.0%
2.5 mR/hr	5000 Scale	2.3	8.0%	2.5	0.0%
1 mR/hr	5000 Scale	0.95	5.0%	1.05	5.0%
400 uR/hr	500 Scale*	400	0.0%	400	0.0%
250 uR/hr	500 Scale*	250	0.0%	250	0.0%
100 uR/hr	500 Scale*	100	0.0%	100	0.0%
200 uR/hr	250 Scale*	200	0.0%	200	0.0%
125 uR/hr	250 Scale*	125	0.0%	125	0.0%
50 uR/hr	250 Scale*	50	0.0%	50	0.0%
40 uR/hr	50 Scale*	40	0.0%	40	0.0%
25 uR/hr	50 Scale*	25	0.0%	25	0.0%
10 uR/hr	50 Scale*	10	0.0%	10	0.0%
20 uR/hr	25 Scale*	20	0.0%	20	0.0%
12.5 uR/hr	25 Scale*	12.5	0.0%	12.5	0.0%
5 uR/hr	25 Scale*	5	0.0%	5	0.0%

CPM/uR/Hr 178

***Pulsed Scale**

Is the As Found Data Within 20% of the Set Point?:

◉ Yes ○ No, See Remarks

REMARKS:

Does Instrument Meet Final Acceptance Criteria?: ◉ Yes ○ No

Calibration Sticker Attached?: ◉ Yes ○ No

Date Instrument is Due For Next Calibration: **04/23/16**

Performed/Reviewed by: E.M. Glenn **Date:** 4/23/2015 **Entered by:** ____ **Initials**

Calibrations performed to ANSI N323A-1997 standards.

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 19 PROBE # 182678

Owner: IEM

DATE: 04/23/15 LOCATION: Griffin Inst

TECH: E.M. Glenn DATE LAST CAL EXPIRES: 04/14/15

(●) Due For Calibration ( ) Other (See Remarks) Cable Length: 39"

( ) Repair (See Remarks) ( ) Due and Repair I.S.: 34mV

NIST TRACEABLE EQUIPMENT AND STANDARDS USED DURING CALIBRATION

MODEL: 2221 SERIAL #: 183997 CAL. DUE: 07/03/15

SOURCE #: 99-1816 ISOTOPE: Cs137 ACTIVITY: 1.23 uCi ASSAY DATE: 08/12/99

GEOMETRY: Jig upside down with source underneath, activity side up.

Physical Condition: (●) Sat ( ) Unsat

Efficiency From Last Calibration: Previous HV Set Point: 650 V

Counts (CPM)	Background (CPM)	Net CPM:

AF Efficiency:

Is the AF efficiency within 20% of the efficiency from the last calibration? ( ) Yes (●) No

Reproducibility: 102970 103450 102640 Average: 103020.00

Are the individual counts within 10% of the average? (●) Yes ( ) No

High Voltage:	Source Response (CPM):	Background (CPM):	Net CPM:
600	87260	1150	86110
625	88820	1310	87510
650	98760	1100	97660
675	99940	1260	98680
700	103600	1280	102320
725	102050	1560	100490
750	103560	1240	102320
775	102220	1370	100850
800	102360	1270	101090

HV	RESPONSE	BACKGROUND	NET CPM	
750 V	102970	1440	101530	Efficiency: 5.34%

REMARKS: No previous plateau data.

Does Instrument Meet Final Acceptance Criteria?: (●) Yes ( ) No

Calibration Sticker Attached?: (●) Yes ( ) No

Date Instrument is Due For Next Calibration: **04/23/16**

INSTRUMENT MARRIED WITH #

Performed/Reviewed by: E.M. Glenn Date: 4/23/2015 Entered by: ____ Initials

Calibrations performed to ANSI N323A-1997 standards

RSP-008, ATTACHMENT 8.16

PHOTON INSTRUMENT DAILY (QC) CHECK SHEET

GENERAL INFORMATION: Client Name	
Client Name:	HRP
Project No:	8284-18A
Meter Model No.:	19
Meter SN:	182678
Probe Model No.:	N/A
Probe SN:	N/A
Background Location:	High Bay
Check Source No:	3347
Radionuclide:	Cs-137
Activity and Date:	1uCi/

Date	Units	Start of Shift Background				Full Shift Background	Source Check Response	Entered By:	2σ Flag	3σ Flag
		1	2	3	Average	Average				
8/10/2015	uR	4	4	4	4	4	215	JWS		
8/11/2015	uR	4	4	4	4	4	220	JWS		
8/12/2015	uR	4	4	4	4	4	229	JWS		
8/13/2015	uR	4	5	5	5	5	220	SJB		
8/14/2015	uR	5	5	5	5	5	240	sjb		
8/17/2015	uR	4	5	5	5	5	240	sjb		
8/18/2015	uR	4	4	4	4	4	240	sjb		
8/19/2015	uR	4	4	5	4	4	230	sjb		
8/25/2015	uR	5	4	4	4	4	220	JWS		

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 2224 SERIAL# 119791

Owner: IEM

DATE: 01/15/15 LOCATION: Griffin Inst

TECH: D.Steimel DATE LAST CAL EXPIRES: 01/20/15

Reason For Calibration: (●) Due For Calibration ( ) Repair (See Remarks)

( ) Other (See Remarks) ( ) Due and Repair (See Remarks)

NIST TRACEABLE EQUIPMENT USED DURING CALIBRATION

MODEL: M-500 SERIAL #: 134715 CAL. DUE: 12/08/15

[✓] Audio Response [✓] Geotropism CABLE LENGTH: 39"

CONDITION: Sat AF MECHANICAL ZERO: 0 AL MECHANICAL ZERO: 0

NEW BATTERIES: ( ) Yes (●) No BATTERY CHECK: Sat

HV (+/-10%)	AS FOUND HV	AS LEFT HV	WINDOW SETTINGS:	A.F.	A.L.
500 V:	500	A.F.	BT (3.5 mV +/- 1 mV):	3.5	4*
1000 V:	1000	A.F.	BW (30 mV +/-3 mV):	30	A.F.
1500 V:	1500	A.F.	AT (120 mV +/-10 mV):	120	A.F.

RATE METER

SCALER

SCALE	RATE CPM	AS FOUND		% ERROR	AS LEFT	% ERROR	AS FOUND	% ERROR	AS LEFT	% ERROR
x.1 or x1	100	100		0.0%	A.F.					
	250	245		2.0%	A.F.		248	0.8%	A.F.	
	400	395		1.3%	A.F.					
x1 or x10	1000	1000		0.0%	A.F.					
	2500	2400		4.0%	A.F.					
	4000	3950		1.3%	A.F.					
x10 or x100	10K	10	K	0.0%	A.F.					
	25K	24	K	4.0%	A.F.					
	40K	39.5	K	1.3%	A.F.					
x100 or x1000	100K	100	K	0.0%	A.F.					
	250K	240	K	4.0%	A.F.					
	400K	395	K	1.3%	A.F.					

Is the As Found Data Within 20% of the Set Point?: (●) Yes ( ) No

Overload Light: (●) Adjusted / Verified ( ) Not Adj.

REMARKS: Adjusted Beta Threshold to improve A to B crosstalk on the probe.

Does Instrument Meet Final Acceptance Criteria?: (●) Yes ( ) No

Calibration Sticker Attached?: (●) Yes ( ) No

Date Instrument is Due For Next Calibration: 01/15/16

INSTRUMENT MARRIED WITH 43-93 #PR229438

Performed/Reviewed by: DS D.Steimel Date: 1/15/2015 Entered by: DS Initials

Calibrations performed to ANSI N323A-1997 standards.

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 43-93 PROBE # PR229438

Owner: IEM

DATE: 01/15/15 LOCATION: Griffin Inst
TECH: D.Steimel DATE LAST CAL EXPIRES: 01/20/15

REASON FOR CALIBRATION:

(●) Due For Calibration ( ) Repair (See Remarks) ( ) Other (See Remarks) ( ) Due and Repair

CABLE LENGTH: 39" INPUT SENSITIVITY: DUAL

NIST TRACEABLE EQUIPMENT AND STANDARDS USED DURING CALIBRATION

MODEL: 2224 SERIAL #: 119791 CAL. DUE: 01/15/16

NIST TRACEABLE SOURCES USED

Source Number	Isotope	4 pi Activity	Assay Date	2 pi Activity
99TC470-1814	Tc99 SS	31,330 dpm	05/27/14	19,600 cpm
2697-00	Sr90	12,200 dpm	03/01/00	8,530 cpm
99TH470-1815	Th230	24,052 dpm	09/05/14	10,930 cpm
2696-00	Pu239	18,500 dpm	12/02/09	9,370 cpm

Efficiencies from last cal.:

Condition: (●) Sat ( ) Unsat

Pu:		Th:	17.93%	Sr:	
Tc ss:	12.82%	C14:		Tc Ni:	

As Found (AF) Efficiencies:

HV / Vernier:	Tc-99 Source Response Nickel (CPM):			Pu-239 Source Response (CPM):			Background (CPM):		Tc-99 Source Response Stainless Steel (CPM):		
	A ch.	B ch.	Net Eff.	A ch.	B ch.	Net Eff.	A ch.	B ch.	A ch.	B ch.	Net Eff.
700 / N/A				3863	1077	20.87%	2	218	7	4623	14.06%

Net A to B Xtalk: <10%	B to A Xtalk: <1%
18.2%	<1%

	Pu239	Tc99 Ni	Tc99 ss	Th-230	Sr90	C-14
AF CPM:	3863		4623	4088	2713	
AF 4 pi eff:	20.87%		14.06%	16.99%	29.23%	
AF 2 pi eff:	*41.21%*		*22.47%*	*37.38%*	*41.81%*	

Is as found efficiency within 20% of the efficiency from the last cal? (●) Yes ( ) No (See Remarks)

Note: If the as found data is within 10% of the last calibration and the B-A Xtalk is <1% and the A-B Xtalk is <10%, then the technician may N/A the plateau section and go directly to remarks.

GRIFFIN INSTRUMENTS

PROBE #: PR229438
Date: 01/15/15

PLATEAU AND SET POINT DATA

HV / Vernier:	Tc-99 Source Response SS (CPM):			Pu-239 Source Response (CPM):			Background (CPM):		Net A to B Xtalk: <10%	B to A Xtalk: <1%
	A ch.	B ch.	Net Eff.	A ch.	B ch.	Net Eff.	A ch.	B ch.		
625	6	1699	5.1%	2349	390	12.7%	0	105	10.8%	<1%
650	1	2699	8.2%	2970	393	16.1%	0	120	8.4%	<1%
675	3	3268	9.9%	3388	433	18.3%	1	176	7.1%	<1%
690	5	3457	10.4%	3469	492	18.7%	1	196	7.9%	<1%
700	2	4283	13.0%	3782	705	20.4%	2	213	11.5%	<1%
AF Plateau										

Alpha / Beta Bkg (cpm)

HV / Vernier		Pu-239	Tc-99 Ni	Tc-99 SS	Th-230	C-14	Sr-90
N/A	CPM:						

4 pi AL Efficiencies:
2 pi AL Efficiencies:

PROBE #: PR229438
Date: 01/15/15

PLATEAU AND SET POINT DATA

HV / Vernier:	Tc-99 Source Response SS (CPM):			Pu-239 Source Response (CPM):			Background (CPM):		Net A to B Xtalk: <10%	B to A Xtalk: <1%
	A ch.	B ch.	Net Eff.	A ch.	B ch.	Net Eff.	A ch.	B ch.		
625	0	1782	5.5%	706	512	3.8%	0	63	38.9%	<1%
650	3	3075	9.5%	1981	399	10.7%	0	96	13.3%	<1%
675	0	3576	11.0%	2421	458	13.1%	1	121	12.2%	<1%
700	3	4200	12.9%	3528	403	19.1%	2	147	6.8%	<1%
725	4	5198	16.0%	3699	556	20.0%	1	184	9.1%	<1%
AL Plateau										

Alpha / Beta Bkg (cpm) 1 184

HV / Vernier		Pu-239	Tc-99 Ni	Tc-99 SS	Th-230	C-14	Sr-90
725 / N/A	CPM:	3699		5198	3940		2811
4 pi AL Efficiencies:		**19.99%**		**16.00%**	**16.38%**		**30.78%**
2 pi AL Efficiencies:		***39.47%***		***25.58%***	***36.04%***		***44.02%***

REMARKS: A.F. high alpha to beta crosstalk. Replaced ditry mylar. Tried to plateau. Replaced scintillator.

Does Instrument Meet Final Acceptance Criteria?: (•) Yes ( ) No

Calibration Sticker Attached?: (•) Yes ( ) No

Date Instrument is Due For Next Calibration: **01/15/16**

INSTRUMENT MARRIED WITH **2224** **#119791**

Performed/Reviewed by: D. S D.Steimel **Date:** 1/15/2015 **Entered by:** D S **Initials**

2 pi efficiencies denoted in italics.

Calibrations performed to ANSI N323A-1997 standards.

RSP-008, ATTACHMENT 8.17

CONTAMINATION SURVEY INSTRUMENT DAILY (QC) CHECK SHEET

GENERAL INFORMATION:	
Client Name:	HRP
Project No:	8284-18A
Meter Model No.:	2224
Meter SN	119791
Probe Model No.:	43-93
Probe SN	PR229438
Detector Area (cm2):	100
Background Location:	High Bay
Count time (min)	1
Alpha Check Source No:	2400-98
Radionuclide:	Th-230
Activity (dpm):	12700
Efficiency (c/d):	0.1699
Beta Check Source No:	2398-98
Radionuclide:	Tc-99
Activity (dpm):	19200
Efficiency (c/d):	0.1406

[area = 100 for smear counter]

Date	Units	Start of Shift Background (alpha)				Start of Shift Background (beta)				Daily Average		Source Check (alpha)		Source Check (beta)		MDA (dpm)		Entered by:	2σ Alpha Flag	2σ Beta Flag	3σ Alpha Flag	3σ Beta Flag
		1 (counts)	2 (counts)	3 (counts)	Average (cpm)	1 (counts)	2 (counts)	3 (counts)	Average (cpm)	Alpha (cpm)	Beta (cpm)	Source (counts)	Eff. (c/d)	Source (counts)	Eff. (c/d)	Alpha	Beta					
8/10/2015	cpm	2	1	2	2	140	171	167	159	2	159	2252	0.18	3587	0.19	38	420	JWS				
8/19/2015	cpm	0	2	1	1	175	165	180	173	1	173	2280	0.18	3425	0.18	30	438	sjb				
8/25/2015	cpm	0	1	1	1	167	170	149	162	1	162	2261	0.18	3592	0.19	25	424	JWS				

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 2929 SERIAL# 126126

Owner: IEM

DATE:	04/22/15	**LOCATION:**	Griffin Inst
TECH:	E.M. Glenn	**DATE LAST CAL EXPIRES:**	08/14/15

Reason For Calibration: ○ Due For Calibration ○ Repair (See Remarks)

CABLE LENGTH: 39" ○ Other (See Remarks) ◉ Due and Repair (See Remarks)

NIST TRACEABLE EQUIPMENT USED DURING CALIBRATION

MODEL:	M-500	**SERIAL #:**	114512	**CAL. DUE:**	10/15/15
MODEL:		**SERIAL #:**		**CAL DUE:**	

Condition: ◉ Sat ○ Unsat

AF Mechanical Zero: 0

AL Mechanical Zero: 0

Scaler Function Check	As Found	As Left		
Beta Channel Window (4-50 mV):	4-48	A.F.		
Alpha Channel Window (175 mV, 120 for 3030):	175	A.F.		
Alpha Counts w/Pulser @ 10,000 CPM:	10,002	A.F.	**% Error:**	0.0%
Beta Counts w/Pulser @ 10,000 CPM:	10,003	A.F.	**% Error:**	0.0%
HIGH VOLTAGE POWER SUPLY CAL. (2929 only)				
1 KV Reading (R-5 on HV Board):	1	A.F.		
Max HV (1500 V +):	◉ Sat ○ Unsat			

REMARKS: Tagged out "Count light stays on after elapsed time". No problem found.

Does Instrument Meet Final Acceptance Criteria?: ◉ Yes ○ No

Calibration Sticker Attached?: ◉ Yes ○ No

Date Instrument is Due For Next Calibration: **04/22/16**

INSTRUMENT MARRIED WITH **43-10-1** **# PR132238**

Performed/Reviewed by: E.M. Glenn EMG **Date:** 4/22/2015 **Entered by:** EMG **Initials**

Calibrations performed to ANSI N323A-1997 standards.

GRIFFIN INSTRUMENTS

CALIBRATION CERTIFICATE FOR 43-10-1 PROBE # PR132238

Owner: IEM

DATE: 04/22/15 **LOCATION:** Griffin Inst

TECH: E.M. Glenn **DATE LAST CAL EXPIRES:** 08/14/15

REASON FOR CALIBRATION:

(●) Due For Calibration ( ) Repair (See Remarks) ( ) Other (See Remarks) ( ) Due and Repair

CABLE LENGTH: 39" **INPUT SENSITIVITY:** dual

NIST TRACEABLE EQUIPMENT AND STANDARDS USED DURING CALIBRATION

MODEL: 2929 **SERIAL #:** 126126 **CAL. DUE:** 04/22/16

NIST TRACEABLE SOURCES USED

Source Number	Isotope	4 pi Activity	Assay Date	2 pi Activity
00TC470-0654	Tc99 SS	17,300 dpm	06/15/09	10,800 cpm
94TH470-1593	Th230	16,672 dpm	05/27/14	7,671 cpm
2696-00	Pu239	18,500 dpm	12/02/09	9,370 cpm
2697-00	Sr90	12,200 dpm	03/01/00	8,530 cpm
PX-726	C14	48,780 dpm	01/21/08	18,660 cpm

Condition: (●) Sat ( ) Unsat

Efficiencies from last cal.:

Pu:		Th:	30.28%	Sr:	
Tc ss:	21.66%	C14:		Tc Ni:	

As Found (AF) Efficiencies:

HV / Vernier:	Tc-99 Source Response Nickel (CPM):			Pu-239 Source Response (CPM):			Background (CPM):		Tc-99 Source Response Stainless Steel (CPM):		
	A ch.	B ch.	Net Eff.	A ch.	B ch.	Net Eff.	A ch.	B ch.	A ch.	B ch.	Net Eff.
700 / 2.85				6614	296	35.75%	0	54	0	3786	21.57%

Net A to B Xtalk: <10%	B to A Xtalk: <1%
3.5%	<1%

	Pu239	Tc99 Ni	Tc99 ss	Th-230	Sr90	C-14
AF CPM:	6614		3786	4972	3064	4709
AF 4 pi eff:	35.75%		21.57%	29.82%	35.48%	9.54%
AF 2 pi eff:	*70.59%*		*34.56%*	*64.82%*	*50.74%*	*24.95%*

Is as found efficiency within 20% of the efficiency from the last cal? (●) Yes ( ) No (See Remarks)

Note: If the as found data is within 10% of the last calibration and the B-A Xtalk is <1% and the A-B Xtalk is <10%, then the technician may N/A the plateau section and go directly to remarks.

RSP-008, ATTACHMENT 8.17

CONTAMINATION SURVEY INSTRUMENT DAILY (QC) CHECK SHEET

GENERAL INFORMATION:	
Client Name:	HRP
Project No:	8284-18A
Meter Model No.:	2929
Meter SN	126126
Probe Model No.:	43-10-1
Probe SN	PR132238
Detector Area (cm2):	100
Background Location:	High Bay
Count time (min)	1
Alpha Check Source No:	2400-98
Radionuclide:	Th-230
Activity (dpm):	12700
Efficiency (c/d):	0.2982
Beta Check Source No:	2398-98
Radionuclide:	Tc-99
Activity (dpm):	19200
Efficiency (c/d):	0.2157

[area = 100 for smear counter]

Date	Units	Start of Shift Background (alpha)				Start of Shift Background (beta)				Daily Average		Source Check (alpha)		Source Check (beta)		MDA (dpm)		Entered by:	2σ Alpha Flag	2σ Beta Flag	3σ Alpha Flag	3σ Beta Flag
		1 (counts)	2 (counts)	3 (counts)	Average (cpm)	1 (counts)	2 (counts)	3 (counts)	Average (cpm)	Alpha (cpm)	Beta (cpm)	Source (counts)	Eff. (c/d)	Source (counts)	Eff. (c/d)	Alpha	Beta					
8/10/2015	counts	1	0	2	1	43	41	44	43	1	43	4380	0.34	4689	0.24	18	144	JWS				
8/12/2015	counts	0	0	1	0	42	41	41	41	0	41	4349	0.34	4701	0.24	12	141	JWS				
8/13/2015	counts	0	0	0	0	46	40	40	42	0	42	4272	0.34	4752	0.25	3	142	sjb				
8/18/2015	counts	0	0	0	0	51	43	40	45	0	45	4424	0.35	4808	0.25	3	147	sjb				
8/19/2015	counts	0	3	0	1	41	35	52	43	1	43	4546	0.36	4946	0.26	18	144	sjb				
8/25/2015	counts	0	0	0	0	39	44	45	43	0	43	4412	0.35	4772	0.25	3	144	JWS				

ATTACHMENT E
Field Activity Daily Logs

Plexus-IEM
FIELD ACTIVITY DAILY LOG

Facility: Clarmont Polychemical Site, Old Bethpage, NY	
Date: August 10, 2015	**Job/Task Number**: 8284-18A
Client Name: HRP Associates, Inc	
Address of Work Site: 505 Winding Road, Old Bethpage, NY	
Description of Work: Granulated Activated Carbon (GAC) removal from 2 Process Tanks	
Arrived on site at (insert date and time): 0600	**Departed site at (insert date and time)**: 1000

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

0600 - Arrive onsite (Steve Baker and Jeff Sumlin) to prep for removal activities. Conduct calibration of instruments and designated locations for exposure and contamination surveys. A total of 10 stations are established – 5 interior around the tanks, 2 near the doorway thresholds, and 3 on the blacktop drive where the Vac Tanks will be placed.

0650 - Waste Oil Solutions, Inc (WOSI) removal team arrives with their equipment. Team is comprised of Paul Rice, President, Paul Sullivan, Supervisor, and Ted Sadowski, Jr and Jon DiNapoli as field techs.

0730 - Conduct GET training and discuss general tailgate safety meeting topics. Discuss the project and any questions WOSI crew has about exposure issues.

0800 to 0835 – Conduct survey of Vac truck while WOSI crew unpacks and begins set up. Once prepared, work began in loosening/removing the oval manway hatch on the side of the easternmost Process Tank (Tank 1). This attempt met with failure due to the dense GAC that backed the hatch. The hatch could not be shifted laterally, tilted, and removed to allow access.

Approx 0900 - Check email and find message from Triad Transporters. Vac Boxes are currently on truck in Breezewood PA. Truck will not be on the road until 0945 today! This is a MAJOR setback. Vac tanks (2) were to be delivered by 0900 today. Not physically possible for the tanks to arrive until late afternoon at the earliest. Begin telephone calls to express displeasure with the turn of events. Speak to Dick Dune (VP) and Triad Transport dispatcher about this problem. Obtain little satisfaction. Call Curtis Hamilton at USEI (he is actual contractual vehicle for IEM's transport needs). He is sympathetic with our situation and asks that I outline my position in an email directed to him. I am asking for "damages" in the form of recovered fees/wages for an idle crew (WOSI) and lost time for the IEM team.

1000 – Dismiss WOSI crew and IEM team. WOSI will charge a ½ day rate for today. Explain situation to the HRP Assoc. PM (Ms. Jen Kotch).

1030 – 1615 - Return to Hotel to prepare "damages/compensation letter" requested by Mr. Hamilton of USEI. Discuss issues with IEM VP as well. Receive periodic updates from Triad dispatch about progress of driver in reaching site. By 1600, IEM Team decides it is too late to report back to the site to spot the boxes (which still have not actually arrived on-site). Call dispatch to request that drop occur by 0630 tomorrow morning (Monday). This lack of timely delivery has cost us the equivalent of 6+ hours of potentially productive removal time and essentially puts us a day behind schedule.

Unusual Occurrences (list): SNAFU with delivery of Vac Tanks. Loose remainder of day after 1000.

Client or Regulator Activity Requests or Special Orders (list): Extensive discussions about options and situation revolving around the Vac Tank delivery problem. Fortunately, Client is understanding.

Changes in the Project Scope (list): Latter half of Day 1 lost. No optional activities can be undertaken.

Important Decisions: Decide to call of crew at 1000 and to pursue "damages" request with the Transporter.

Important Telephone Calls and Interactions: Inform Carol Berger, VP of issue regarding the tanks and contact subs responsible for the problem. Several telephone calls with all parties to our project ensured during the day.

Weather Conditions: Sunny, clear. Temps in the low 80s predicted

Visitors on Site (list): □ Visitor log attached None

Attachments: □ H&S Report □ Tailgate Safety Training Form □ Additional pages □ Other (specify)

Name (print): Steve Baker, Project Manager	Signature: 

Distribution:

Plexus-IEM
FIELD ACTIVITY DAILY LOG

Facility: Clarmont Polychemical Site, Old Bethpage, NY	
Date: August 11, 2015	**Job/Task Number**: 8284-18A
Client Name: HRP Associates, Inc	
Address of Work Site: 505 Winding Road, Old Bethpage, NY	
Description of Work: Granulated Activated Carbon (GAC) removal from 2 Process Tanks	
Arrived on site at (insert date and time): 0630	**Departed site at (insert date and time)**: 1530

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

0700 - Received two Vac Tanks from Transporter (Triad Transport) and set both tanks (outdoors) near the Process Tanks located just inside the building (plant) by the large roll-up service door. One Vac Tank is prepared to receive "dry GAC" while the second "wet GAC". Start with dry removal process and commit this GAC to Vac Tank B8002

0830 - Waste Oil Solutions, Inc (WOSI) removal team prepare the suction lines, coupling, secondary containment, decon line, and tools needed to begin the removal work.

0930 - Once prepared, work began in loosening/removing the oval manway hatch on the side of the easternmost Process Tank (Tank 1). This attempt met with failure due to the dense GAC that backed the hatch. The hatch could not be shifted laterally, tilted, and removed to allow access.

1000 - WOSI crew turns attention to removal of accumulated filter cake stored on-site. This material is located in 3 55-gallon drums that are staged near the Process Tanks. This material is dense, wet, and very "cake-like".

Received visitors from New York State, one from the Department of Env. Conservation (DEC) at approx. 1100 and one from the Dept of Health (at approx. 1030) for licensing inspection. The specific individuals are identified in the Visitor Section below. DOH representative leaves the site at approximately 1300 (no issues) and the DEC at approximately 1400.

1100 - WOSI attempts to conduct GAC removal from the tank's rooftop manway. Requires personnel to stand on ladder in order to access manway. Some material was recovered via this mode, but small size of the manway, density of the GAC, fatigue from being on a ladder, and reduced recover rates with time leads to the abandonment of this removal avenue.

1215 – 1300 - Decision is made to take grinder with cutting wheel to the ground-level manway hatch and cut a hole in same to provide access to GAC within. Hole allows enough GAC to be removed from behind manway hatch to permit its removal. Access is still limited (the hatch is an oval shape and approximately 16 inches high and 18 inches wide), but ground level access is superior to the rooftop option.

Continue removal ops until end of the day (1500). WOSI off-site by 1515. Plexus-IEM off-site by 1530.

Unusual Occurrences (list): Much trial and error required to hit upon solution to the removal process in light of significant material packing. Nothing unusual per se.

Client or Regulator Activity Requests or Special Orders (list): Extensive discussions about removal option and the possible use of water to facilitate removal.

Changes in the Project Scope (list): No significant scope changes.

Important Decisions: Decide to use grinding wheel to cut open lower manway door to facilitate removal of GAC from ground level. Removal from the tank's roof top manway is too difficult and poses safety risks while perched on ladders.

Important Telephone Calls and Interactions: Inform Carol Berger, VP of slow going and removal problems with the compacted GAC. Request consideration of the use of high pressure water to assist in breaking up the GAC for subsequent vacuum removal.

Weather Conditions: Overcast and rainy most of the day. Rain heavy at times. Temps in the low 80s

Visitors on Site (list): □ Visitor log attached Mr. Ben Rund of the State Department of Environmental Conservation (DEC) and Dr. Brajesh Kothari, CHP of the NY Department of Health (DOH), Bureau of Environmental Rad Protection

Attachments: □ H&S Report □ Tailgate Safety Training Form □ Additional pages □ Other (specify)

Name (print): Steve Baker, Project Manager	Signature: 

Distribution:

Plexus-IEM
FIELD ACTIVITY DAILY LOG

Facility: Clarmont Polychemical Site, Old Bethpage, NY	
Date: August 12, 2015	**Job/Task Number**: 8284-18A
Client Name: HRP Associates, Inc	
Address of Work Site: 505 Winding Road, Old Bethpage, NY	
Description of Work: Granulated Activated Carbon (GAC) removal from 2 Process Tanks	
Arrived on site at (insert date and time): 0630	**Departed site at (insert date and time)**: 1700

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

0630 - Arrive on-site and find that WOSI team is already here and working on the Vac Truck. Seems a computer air emissions problem has arisen. Apparently the exhaust filter goes through a "regeneration" process and ….it doesn't want to regenerate at this point. Truck cannot be used until the issue is resolved. Have to call in a tech to trouble shoot. In the meantime, WOSI will bring in another unit as a stand in, which is not outfitted with filter banks and discharges air directly to the atmosphere. Speak to Jeff Sumlin and Carol Berger about the use of this system. Both agree use is appropriate if we take hourly smears of the exhaust stack to ensure no emissions.

0750 – 0810 New vac truck onsite and conduct tailgate safety meeting.

0810 – 0945 - Begin work on GAC removal.

0954 - WOSI team making very good progress. Have moved large amount of material from the Process Tank in very short order. Check Vac Tank (B8002) and find it is about half full. VERY good news for once.
i
1025 – 1230 - Back to "vaccing". During this period the service tech for the "regeneration" issue has arrived on-site. Problem has been identified – will take a while to sort thru, but possible we can have original truck back on line a bit later today. Also, Paul S is developing the water removal system we intend to use in the subsequent Vac Tanks.

1315 - Back to removals. Will continue to use the existing vac truck for the rest of the day. Production ceases at approx. 1410

1420 – Triad delivers 3rd tank. WOSI crew has Tank #1 buttoned up and ready to move. Trucker picks up Tank 1 and goes into the site;s yard to drop it temporarily so the new empty (Tank 3) can be set in place. Driver is VERY slow in lining up/hooking up to tank.

Approx 1500 - The trucker has the full box he is going to temporarily set in the yard stuck on the vehicle. Appears one of the roller grapples that holds the tank in place as it is being loaded/offloaded is stuck. Won't let the box to the ground. Retrieving a big sledge hammer at neighboring commercial facility to help break it loose. Finally get it to break free, but takes an hour or more to do.

Approximately 1600 - WOSI team off site by 1530 latest, so IEM team is responsible for setting the new tank and ensuring the full one gets loaded again for transport off-site. Driver is VERY slow- seems to take forever to line up and set the new box. Finally get it done and move back to loading the full box. Box loaded without incident. Jeff Sumlin performs surveys, provides the manifest and other paperwork to driver. S.Baker signs for receipt of the new box. Get the driver on his way a bit before 1700.

1700 - IEM team demobs from the site. VERY long day, but the first box is off and running to Idaho.

Unusual Occurrences (list): Have trucking issues again. This time equipment malfunction here in yard. Problem described above. Otherwise, nothing unusual per se.

Client or Regulator Activity Requests or Special Orders (list): Nothing other than progress updates

Changes in the Project Scope (list): No significant scope changes.

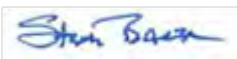
Important Decisions: Will continue with dry removal techniques to minimize water input. Want to get original vactor truck back on-line tomorrow.

Important Telephone Calls and Interactions: None

Weather Conditions: Clear, sunny, hot as day wears on. Temps in mid 80s at least.

Visitors on Site (list): □ Visitor log attached Only Triad truck driver this day.

Attachments: □ H&S Report □ Tailgate Safety Training Form □ Additional pages □ Other (specify)

Name (print): Steve Baker, Project Manager	Signature: 

Distribution:

Plexus-IEM
FIELD ACTIVITY DAILY LOG

Facility: Clarmont Polychemical Site, Old Bethpage, NY	
Date: August 13, 2015	**Job/Task Number**: 8284-18A
Client Name: HRP Associates, Inc	
Address of Work Site: 505 Winding Road, Old Bethpage, NY	
Description of Work: Granulated Activated Carbon (GAC) removal from 2 Process Tanks	
Arrived on site at (insert date and time): 0630	**Departed site at (insert date and time)**: 1515

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

0630 - Arrive on-site and find that WOSI team is already here. Set up on the new tank (green Baker tank – tank 3) and turn attention to Process Tank No. 2. Want to fill our new vac tank as soon as we can.

0700 – 0800 - WOSI cut into manway hatch and remove it altogether. Much easier process than prior Tank 1 experience. Conduct instrument calibrations in the meantime.

0815 – 0920 - Crew reports that GAC at chest high down is very dense and a bit damper than prior experience. Upper levels of GAC are said to be quite light and easy to move. Will concentrate on max recovery for time and efficiency purposes.

0920 – Break.

0955 – 1140 – Continue recovery work. The vacuum hose is starting to clog on a regular basis. Caking on inside of tube is the issue. Periodic shutdowns to clear clogs noted. May have to change out hose, but will see if we can make it through filling this box.

1140 – 1245 - Lunch.

1245 – Begin work again. Crew said to work through to 1430 when they will begin breaking down for the day.

1300 - Place “Caution Radioactive Materials” sticker on the Baker box we are currently filling.

1400 – Use the Model 12 GM to survey around the GAC and the WOSI personnel. Readings (in CPM) were at max of 140. Background on same instrument is about 50.

1415 - Conduct various surveys around the work area. Around the vac tank we are seeing, on average, 50 uR/hr at 1-foot and 100 uR/hr on contact. At each of the portals to the Process Tanks (immediate area of worker activity), rates are around 120 -150 uR/hr. GAC is now no longer as voluminous right near the entrances and rates have receded to some extent. Prior reading were in the 200-250 range. Near contact reading on large masses of GAC exceed 300 uR/hr.

1430 - Crew begins break down of system and clean-up of the site for the day. View from upper portal of the tank suggest that about 1/3 of the GAC volume was removed today. Crew suggest they will continue with dry removal method through tomorrow. The Baker vac tank (V3060) should be full by AM hours.

1500 - Begin IEM shut down process for the day. Stow all instruments and conclude this daily report. Off site by 1515.

Unusual Occurrences (list): None

Client or Regulator Activity Requests or Special Orders (list): Nothing other than progress updates

Changes in the Project Scope (list): No significant scope changes.

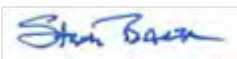
Important Decisions: Will continue with dry removal techniques to minimize water input. Want to get the new Baker tank filled by tomorrow AM.

Important Telephone Calls and Interactions: None

Weather Conditions: Clear, sunny, hot as day wears on. Temps in low 80s. Very nice day

Visitors on Site (list): □ Visitor log attached None

Attachments: □ H&S Report □ Tailgate Safety Training Form □ Additional pages □ Other (specify)

Name (print): Steve Baker, Project Manager	Signature: 

Distribution:

Plexus-IEM
FIELD ACTIVITY DAILY LOG

Facility: Clarmont Polychemical Site, Old Bethpage, NY	
Date: August 14, 2015	**Job/Task Number**: 8284-18A
Client Name: HRP Associates, Inc	
Address of Work Site: 505 Winding Road, Old Bethpage, NY	
Description of Work: Granulated Activated Carbon (GAC) removal from 2 Process Tanks	
Arrived on site at (insert date and time): 0630	**Departed site at (insert date and time)**: 1315

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

0630 - Arrive on-site and find that WOSI supervisor is already here and checking the vactor truck. Discuss a concern with him that the GAC may be passing thru the vac tank and into the truck directly because of the volume we've already accumulated in the vac tank. We check the tank on the truck and observe no evidence of any significant GAC "pass thru". The material is staying in the vac tank.

We will continue to run "dry" for the day. If need be, we will hook up to the last vac tank (the "wet" tank) to start filling it with GAC. Will start wet process come Monday.

0720 - Crew begins GAC removal activities. Also, we are compressing the work schedule so we can leave the site a bit early today for traffic/demob purposes.

0930 - Crew break

1030 - Up and running again. Will be working through to 1300 today.

1230 - Box filled, especially on gate end where inlet port is located. Reduced vacuum. Box is considered full at this point. Crew begins breaking down set up and securing the full tank. Decision made to wait until Monday to begin wet transfers. Completed paperwork and departed site.

Unusual Occurrences (list): None

Client or Regulator Activity Requests or Special Orders (list): Nothing other than progress updates

Changes in the Project Scope (list): No significant scope changes.

Important Decisions: Will continue with dry removal techniques to minimize water input. Will fill Baker tank by COB.

Important Telephone Calls and Interactions: None

Weather Conditions: Clear, sunny, hot as day wears on. Temps in high 80s. Heat wave coming for next week.

Visitors on Site (list): □ Visitor log attached None

Attachments: □ H&S Report □ Tailgate Safety Training Form □ Additional pages □ Other (specify)

Name (print): Steve Baker, Project Manager	Signature: 

Distribution:

Plexus-IEM
FIELD ACTIVITY DAILY LOG

Facility: Clarmont Polychemical Site, Old Bethpage, NY	
Date: August 17, 2015	**Job/Task Number**: 8284-18A
Client Name: HRP Associates, Inc	
Address of Work Site: 505 Winding Road, Old Bethpage, NY	
Description of Work: Granulated Activated Carbon (GAC) removal from 2 Process Tanks	
Arrived on site at (insert date and time): 0700	**Departed site at (insert date and time)**: 1600 (WOSI – 1500)

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

0700 - Arrive on-site; conduct tailgate safety meeting. Discuss day's work. Will turn to the pressure washer with concentrated beam to cut up the GAC and minimize water input. Volume of water we will collect could be an issue since we have not yet tested the water recovery system the Team installed in the last (3rd) tank.

0900 - Crew well into cleaning the "far" tank. Water process seems to be speeding up the removal efficiency. Making very big gains this morning.

0930 - Crew break

1010 - Up and running again. Check vac tank during break and find that the wet GAC is building up in a linear fashion along the axis of the inlet port. Creating something of a ridge right down the middle of the tank to the center of the manway (on top). Back end of the tank relatively empty. Could be sign of problem down the line.

1200 - Lunch. Work has been steady and fruitful.

1300 -- Back to it. Exposed piping system in the bottom of the tank creates an incumberance to placing the vac hose into/among the GAC deposits. Working with the hose, pressure washer together through such a small manway port makes removal difficult.

1400 - Tank above the pipe system lattice is virtually clean. All remaining material in the "far" tank is below the pipes. Crew continues removal ops until 1440.

1440 - Begin testing water removal system with the Plant's diaphragm pump. Will pump into tank inside building.

1500 - Clearly something is not working right. Pump is pumping, but water is not getting to reservoir inside building. Peter T (Plant Operator) trouble shoots the system but can find no blockage or closed valve. Will attempt to re-route to the outdoor sump basin instead.

1530 - Having set up on the exterior sump, we find that flow is weak and sporadic. Not the healthy stream of water I envisioned. The water is clear, however, which is a good sign that the pre-filter materials (stone and sock) are working. Unclear why so little water when water is clearly standing in the vac tank itself. Shut down for the day and will reconsider tomorrow.

1600 - Finish up with Peter and discussing the issue. Leave site for hotel. WOSI crew were off-site by 1500.

Unusual Occurrences (list): Unexpected problems with water removal system.

Client or Regulator Activity Requests or Special Orders (list): Nothing other than progress updates

Changes in the Project Scope (list): No significant scope changes.

Important Decisions: Go to high pressure/low water technique to cut and remove GAC from the "far" tank.

Important Telephone Calls and Interactions: None

Weather Conditions: Clear, sunny, humid and VERY hot. Temps in mid 90s. Heat is on full blast!

Visitors on Site (list): □ Visitor log attached None

Attachments: □ H&S Report □ Tailgate Safety Training Form □ Additional pages □ Other (specify)

Name (print): Steve Baker, Project Manager	Signature: 

Distribution:

Plexus-IEM
FIELD ACTIVITY DAILY LOG

Facility: Clarmont Polychemical Site, Old Bethpage, NY	
Date: August 18, 2015	**Job/Task Number**: 8284-18A
Client Name: HRP Associates, Inc	
Address of Work Site: 505 Winding Road, Old Bethpage, NY	
Description of Work: Granulated Activated Carbon (GAC) removal from 2 Process Tanks	
Arrived on site at (insert date and time): 0700	**Departed site at (insert date and time)**: 1500

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

0700 - Arrive on-site; conduct tailgate safety meeting. Discuss day's work. Will turn to the high pressure/high volume system today to remove all remaining GAC from both tanks. Check vac tank and find it is about half filled. Water cover the entire visible surface.

0720 - Calibrate equipment. Will start surveying hand tools shorlly for release.

0830 – Begin smear tests on hand tools.

0830- Crew shows me the "far" tank. Spotless! The high pressure hose really does the trick. Use the bottom outlet piping to remove last residual GAC at the bottom pit of the tank. Water runs clear after wash out complete. Still plenty of capacity for water in our vac tank.

0920 - Measure exposure in the vicinity of the work team. Rates are way down due to removal of nearly all of the GAC. Work zone is now about 30 uR/hr and 40uR/hr at the lip of the manway (active "near" tank where cleaning is on-going). Rate arm's length inside the now clean "far" tank is 15 uR/hr.

0930 - Crew break. Have made great progress on the "near" tank in just a short while.

1000 - Up and running again. David Rice (Pres of WOSI) on-site (approx. 0954) to inspect job.

1050 - More area surveys; Jon begins rinse down from upper hatch. Think we are getting pretty close now.

1115 - Tanks are complete. Jon does final rinse from above on both tanks. All the GAC we can possibly remove is now out of the tanks. Crew now begins hosing off remaining equipment in prep for release surveys. Will begin area clean up after lunch.

1130 – Lunch

1215 – Back to it. Clean up begins. Crew starts on cleaning up floor areas around tanks. Wash all hand equipment and remove all plastic sheeting. Heavy wash down of floor and blacktop apron in front of the vac tanks follows. Take photos of exterior and interior tank spaces.

1320 - Begin second round of equipment clearance surveys.

1345 - Crew begins clean up of Truck #19. This truck was the back-up unit we used last week when the primary was having exhaust regeneration issues. Crew opens the back hatch of the on-board tank and finds layer of tan-colored sand with a light coating of GAC on top. Truck had not been cleaned prior to insertion into service. Quantity of sand appeared to be less than 500 lbs. Material vacuumed into our wet tank. Gross clean up of the truck consumes the remainder of their day. Crew breaks from site at approximately 1420.

1425 – Inspect vac tank No. 3 (B 8001). No standing water visible at this time. Pump system is doing its job. Surface of GAC is very firm to a couple of inches below skim surface. Water is slowing being withdrawn. Discharge water is very clear in appearance.

1440 to 1500 - Clean up my work space and put gear away for tomorrow. Finish paperwork and then leave site for the day.

Unusual Occurrences (list): None to report. Water recovery system works slow, but is effective

Client or Regulator Activity Requests or Special Orders (list): Nothing other than progress updates

Changes in the Project Scope (list): No significant scope changes.

Important Decisions: Go to high pressure/high water technique to blast and remove all remaining GAC in both tanks. VERY effective.

Important Telephone Calls and Interactions: None

Weather Conditions: Clear, sunny, humid and VERY hot. Temps in mid 90s again today. Tough on crew!

Visitors on Site (list): □ Visitor log attached None

Attachments: □ H&S Report □ Tailgate Safety Training Form □ Additional pages □ Other (specify)

Name (print): Steve Baker, Project Manager	Signature: 

Distribution:

Plexus-IEM
FIELD ACTIVITY DAILY LOG

Facility: Claremont Polychemical Site, Old Bethpage, NY	
Date: August 19, 2015	**Job/Task Number**: 8284-18A
Client Name: HRP Associates, Inc	
Address of Work Site: 505 Winding Road, Old Bethpage, NY	
Description of Work: Granulated Activated Carbon (GAC) removal from 2 Process Tanks	
Arrived on site at (insert date and time): 0615	**Departed site at (insert date and time)**: 1620

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

0615 - Arrive on-site; conduct tailgate safety meeting at 0630. Trying to get a head start on the day after shortened day yesterday. Discuss day's work. Will be concentrating the entire day on decon activities. Calibrate all equipment for use in survey/release activities for today.

0710 - Crew begins flushing out the filter cake drums we emptied at the outset of the project. Also flush and suction out the outdoor sump into which we are placing water from our dewatering activities.

0815 – Crew completes sump sediment removal activities. Sump is very clean; were able to remove 99% of the original sediment deposits. Plant Manager pleased.

0830- Crew turns their attention to decon of Vac Truck #19 (back up vehicle). Begin power washing internal workings.

0900 - Begin post-removal survey of Tank Area footprint. Only those survey stations on the concrete surface inside the building and on the apron outside the roll up door (Stations 1-7) are available for survey. Stations 8 through 10 (on the blacktop) are covered by the full waste vac tanks and are inaccessible at this time. Survey takes about 45 minutes to complete (and read smears).

1010 - Truck #19 (back up truck) has been cleaned and is ready for surveying.

1040 - Dave Rice, Pres of WOSI on-site

1130 – Complete survey of Truck #19. Results show alpha levels below 200 dpm. Exposure rates around truck and inside vac tank are at background (5uR/hr).

1200 - Truck 19 released from site and driven back to WOSI's yard.

1310 - Crew returns to work and decon of Truck 18. Continue with cleaning until 1510.

1415 - Dave Rice leaves the site

1510 - Begin release survey on Truck 18 and complete same by 1600. Truck is released, but alpha readings were higher across the board than seen in the pre-condition survey. Nevertheless, all reading below the 200 dpm release criteria. Truck released to WOSI for return to their yard.

1610 - WOSI crew off site. SB continues with smear count evauation.

1620 - Work complete. Gear packed and SB off-site. Jeff S will return to site on August 25th 2015 to manage shipment of the remaining 2 vac boxes. Site Operator will continue to pump off water from B 8001 (the wet box).

Unusual Occurrences (list): None to report. None

Client or Regulator Activity Requests or Special Orders (list): Nothing other than progress updates

Changes in the Project Scope (list): No significant scope changes.

Important Decisions: None

Important Telephone Calls and Interactions: None

Weather Conditions: Clear, sunny, humid and VERY hot. Temps in mid 90s again today.

Visitors on Site (list): □ Visitor log attached David Rice, WOSI President

Attachments: □ H&S Report □ Tailgate Safety Training Form □ Additional pages □ Other (specify)

Name (print): Steve Baker, Project Manager	Signature: 

Distribution:

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

FIELD ACTIVITY DAILY LOG

Facility: HRP	
Date: 25 Aug 2015	Job/Task Number: 8284-18A
Client Name: HRP ASSOCIATES	
Address of Work Site: 505 WINDING RD, OLD BETHPAGE, NY	
Description of Work SHIPPING	

DESCRIPTION OF DAILY ACTIVITIES AND EVENTS

Arrived on site at (insert date and time): 25 Aug 15/ 0730
0730 - ON SITE, ONE TANK ALREADY ON TRUCK
0800 - PERFORMING SHIPPING SURVEY FIRST TRUCK
0845 - SECOND TRUCK LOADED, PERFORMING SHIPPING SURVEY
0900 - COMPLETING MANIFESTS
0915 - PERFORMING SURVEY OF AREA WHERE TANKS WERE LOCATED DURING CARBON REMOVAL
1000 - TRUCKS DEPARTED, OFF SITE
Departed site at (insert date and time): 25 Aug 15/ 1000

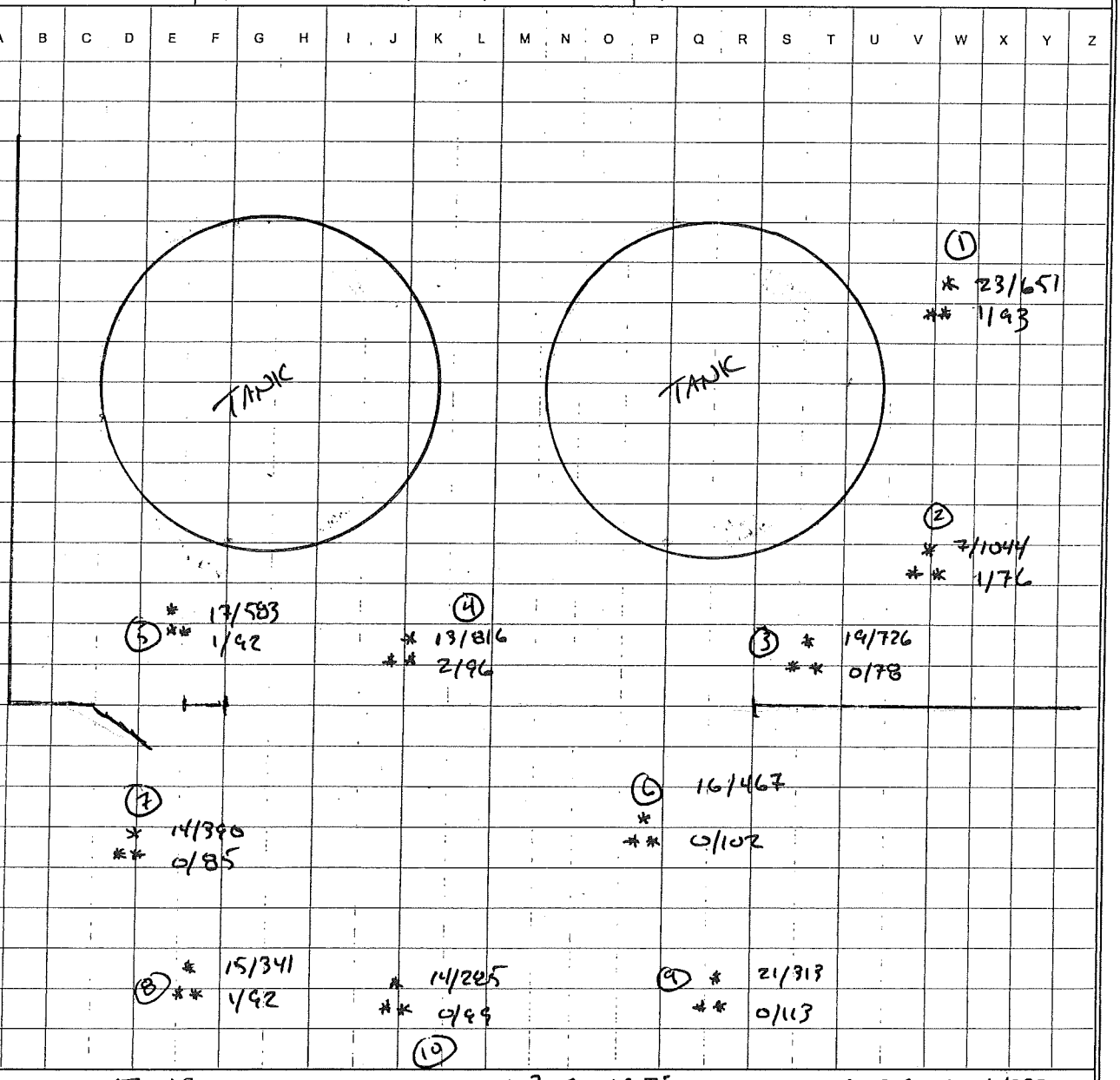
Changes from Plans and Specifications, and Other Special Orders and Important Decisions: N/A	
Weather Conditions: HOT, HUMID, CLEAR	Important Telephone Calls and Interactions: N/A
Personnel on Site: JSmith	
Name (print): Jeffrey J Smith	Signature:

ATTACHMENT F
Radiation Survey Records

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

RADIOLOGICAL SURVEY FORM

Survey No.: HRP-01			
Instrument/SN: 2224/ 119791	Calibration Due: 1/15/16	Date: 8/10/15	Time: 0630
Instrument/SN 2929/ 126126	Calibration Due: 4/22/16	Location: TANK WORK AREA	
Purpose: PRE JOB SURVEY			
Survey Performed By (Signature): [signature]		Survey Checked By (Signature):	
☑ Battery OK ☑ HV OK ☑ Source Check OK	Action Level: N/A □ µR/hr □ mR/hr □ cpm □ dpm	Grid Dimensions: 1 x 1 □ meters □ inches ☑ feet □ centimeters	



Notes: ○ = LOCATIONS
* = α/β TOTAL GROSS (1 MIN COUNT)
** = α/β SWIPE GROSS (2 MIN COUNT)

1-7 = CONCRETE
8-10 = ASPHALT

CONCRETE BKGD = 6/222
ASPHALT BKGD = 11/261

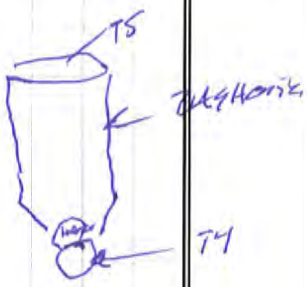
INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

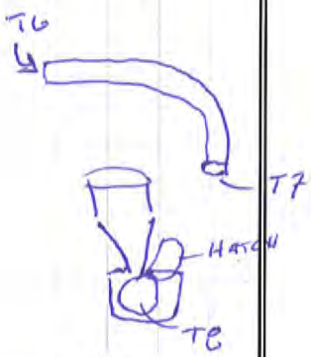
RADIOLOGICAL SURVEY FORM

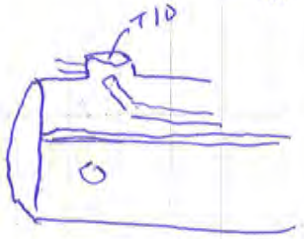
VAC TRUCK #18

Survey No.: HRP-02			
Instrument/SN: 2224/ 119791	Calibration Due: 1/15/16	Date: 8/10/15	Time: 0630
Instrument/SN 2929/ 126126	Calibration Due: 4/22/16	Location: VACUUM TRUCK IN PARKING LOT	
Purpose: PRE JOB SURVEY VACUUM TRUCK VIN 2FZMAZCVXGAAH1686			
Survey Performed By (Signature):		Survey Checked By (Signature):	
☒ Battery OK ☒ HV OK ☐ Source Check OK	Action Level: N/A ☐ µR/hr ☐ mR/hr ☐ cpm ☐ dpm	Grid Dimensions: N/A x N/A ☐ meters ☐ feet ☐ inches ☐ centimeters	

	A	B	C	D	E (TOTAL 6/18)	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	T1				3/134				outer lip of Vac tank on truck																	
2	T2				2/125				adjacent to float																	
3																										
4																										
5	T3				0/115				boom Inlet																	
6																										
7																										
8	T4				3/127				Baghouse base																	
9																										
10	T5				0/133				Top of baghouse																	
11																										
12	T6				1/126				Boom Rear element (dirty)																	
13																										
14	T7				1/146				8" Boom hose																	
15																										
16	T8				6/143				Cyclone Hatch																	
17																										
18																										
19	T9				3/120				DRIVER SIDE FLOOR																	
20																										
21	T10				1/119				BALL FLOAT & HATCH																	
22																										
23																										
24																										
25																										







Notes: ABOVE READINGS ARE TOTAL GROSS α/β (1 MIN COUNT)
α/β SWIPE GROSS (2 MIN COUNT) T1 2/95 T2 1/83 T3 0/94 T4 0/86 T5 0/80
T6 4/98 T7 1/92 T8 1/80 T9 0/91 T10 2/87

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

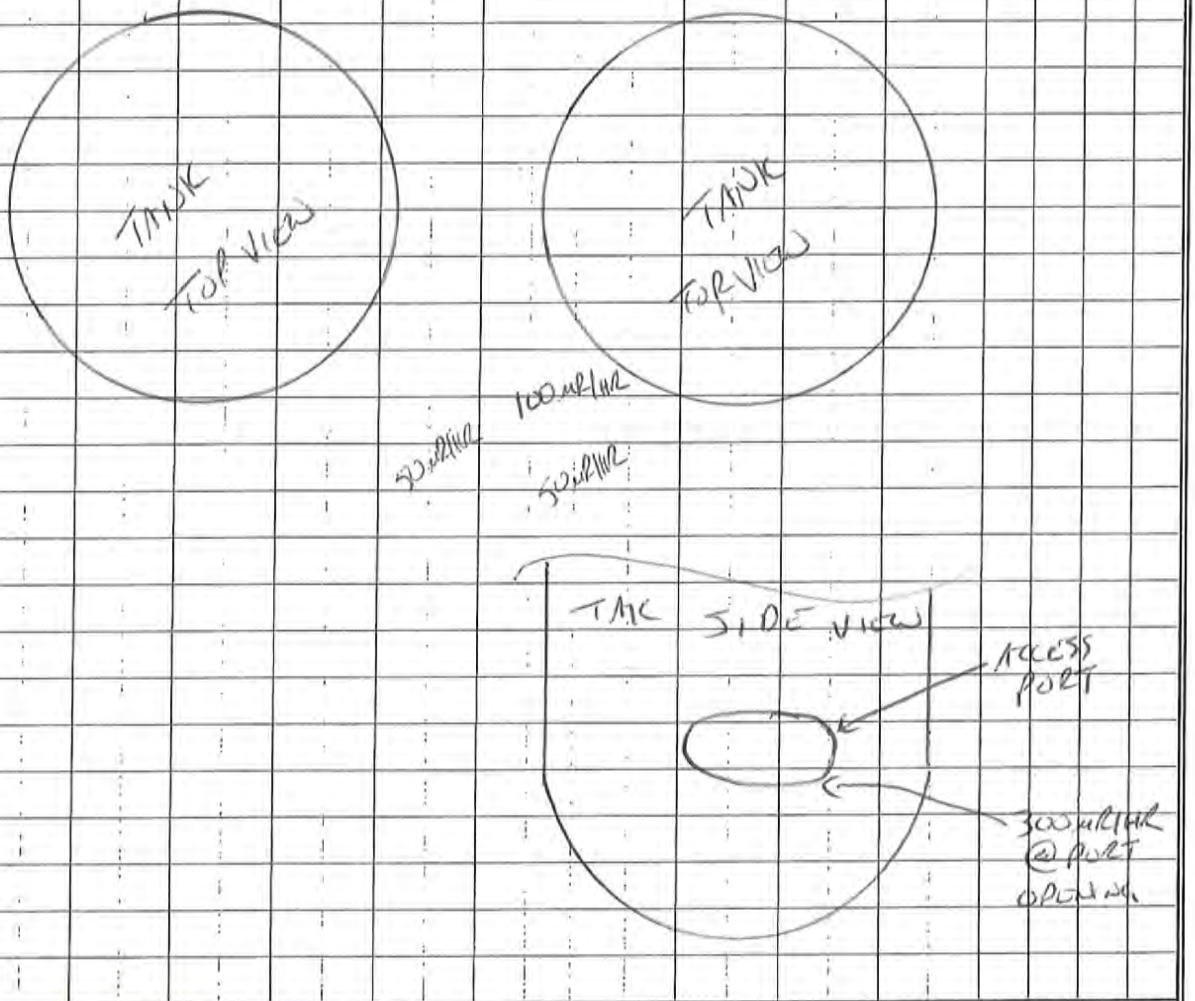
RADIOLOGICAL SURVEY FORM

Survey No.: HRP-03			
Instrument/SN: 19/182678	Calibration Due: 4/23/16	Date: 8/11/15	Time: 1430
Instrument/SN N/A	Calibration Due: N/A	Location: CARBON TANK WORK AREA	
Purpose: WORK AREA EXPOSURE RATES			
Survey Performed By (Signature):		Survey Checked By (Signature):	

☑ Battery OK
☑ HV OK
☐ Source Check OK

Action Level: _____
☐ µR/hr ☐ mR/hr ☐ cpm ☐ dpm

Grid Dimensions: _____ x _____
☐ meters ☐ inches
☐ feet ☐ centimeters



Notes: TANKS FULL OF CARBON

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

RADIOLOGICAL SURVEY FORM

Vac Truck #19

Survey No.: HRP-04			
Instrument/SN: 2929/126126	Calibration Due: 4/22/2016	Date: 8/12/2015	Time: 0800
Instrument/SN N/A	Calibration Due: N/A	Location: VACUUM TRUCK EXHAUST	
Purpose: IN PROCESS CONTAMINATION VERIFICATION			
Survey Performed By (Signature):		Survey Checked By (Signature):	

☒ Battery OK
☒ HV OK
☒ Source Check OK

Action Level: N/A
□ µR/hr □ mR/hr □ cpm □ dpm

Grid Dimensions: N/A x N/A
□ meters □ inches
□ feet □ centimeters

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1		BKGD =					1 cpm α				41 cpm β															
2																										
3		0800					0 cpm α				40 cpm β															
4																										
5		0900					0 cpm α				38 cpm β															
6																										
7		1000					0 cpm α				46 cpm β															
8																										
9		1100					3 cpm α				53 cpm β															
10																										
11		1200					1 cpm α				59 cpm β															
12																										
13		1300					0 cpm α				48 cpm β															
14																										
15		1400					1 cpm α				51 cpm β															
16																										
17																										
18																										
19																										
20																										
21																										
22																										
23																										
24																										
25																										

Notes: Truck #19 brought to site as backup when #18 failed. Readings taken from vacuum exhaust stack

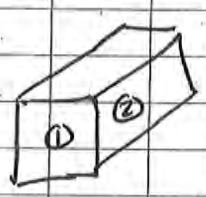
INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

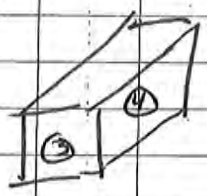
RADIOLOGICAL SURVEY FORM

SHIPMENT OF 1ST BOX

Survey No.: IRP-05			
Instrument/SN: 2929/126226	Calibration Due: 4/22/16	Date: 8/12/15	Time: 1645
Instrument/SN 19/182678	Calibration Due: 4/23/16	Location: TANK B 8002	
Purpose: SHIPPING			
Survey Performed By (Signature):		Survey Checked By (Signature):	
☑ Battery OK ☑ HV OK ☑ Source Check OK	Action Level: N/A ☐ µR/hr ☐ mR/hr ☐ cpm ☐ dpm	Grid Dimensions: N/A x N/A ☐ meters ☐ inches ☐ feet ☐ centimeters	

TANK B 8002

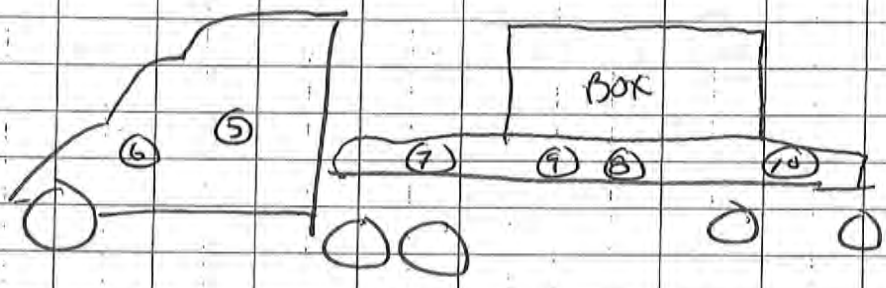




DOOR END

2929 BKGD = 1σ

①	0σ	40	β
②	1σ	39	β
③	0σ	46	β
④	0σ	42	β



⑤	DOOR	0σ	41 β
⑥	FLOOR BOARD	0σ	36 β
⑦	RML	1σ	44 β
⑧	RML	0σ	42 β
⑨	RML	0σ	40 β
⑩	RML	0σ	38 β

MAX DOSE RATE CONTACT 125 µR/HR

MAX DOSE RATE 2M 17 µR/HR

MAX DOSE RATE CNS 5 µR/HR

MAX DOSE RATES PASSENGER SIDE Y3 FROM FRONT REARWAY UP

Notes: TRUCK VIN: 1XP-1049X-6-DD165529

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

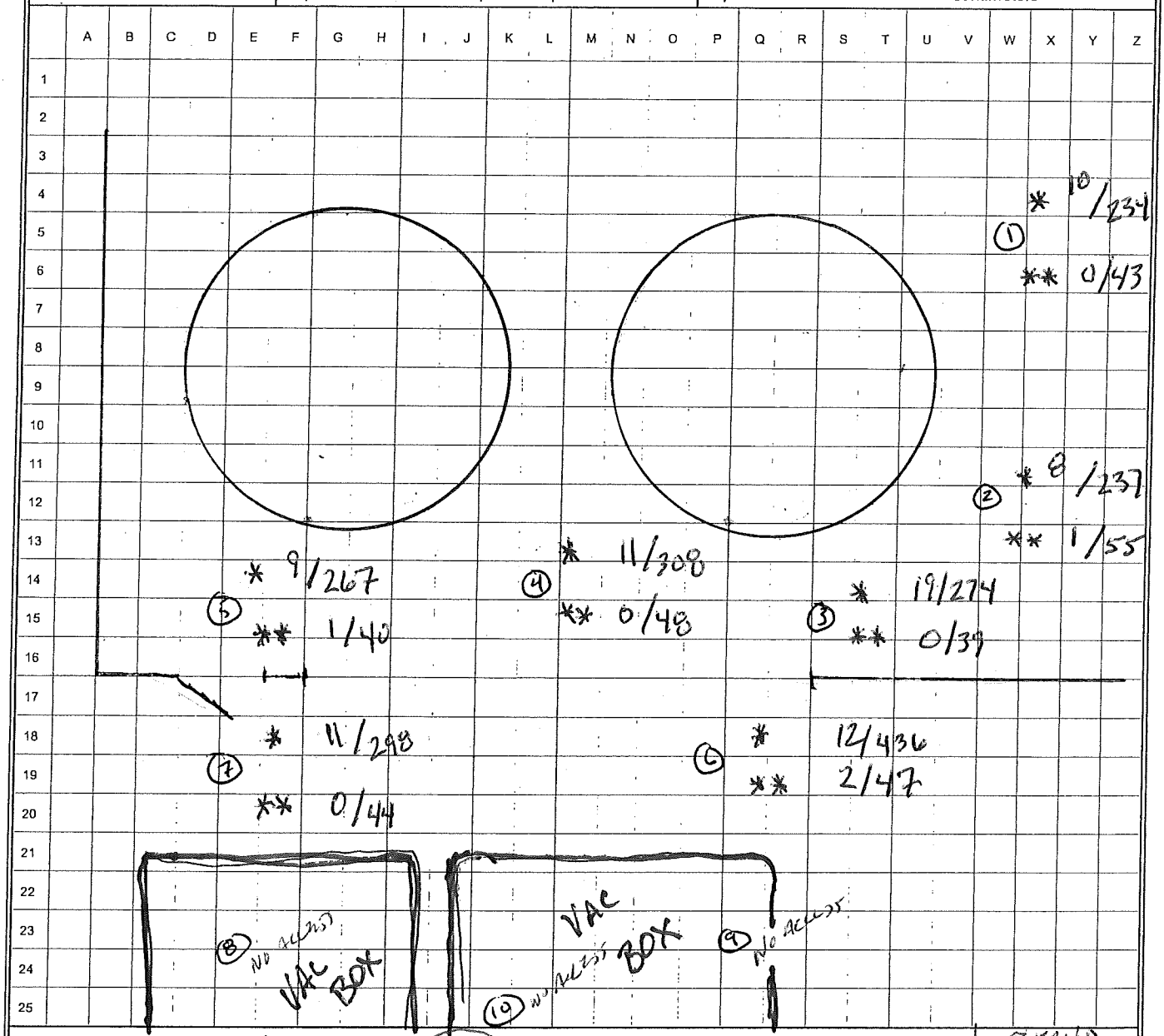
RADIOLOGICAL SURVEY FORM

Survey No.:	HRP-06				
Instrument/SN:	2224/119791	Calibration Due:	1-15-16	Date: 8-19-15	Time: 0930
Instrument/SN	2929/126126	Calibration Due:	4-22-16	Location:	THAW WORK AREA
Purpose:	POST-REMOVAL ACTION SURVEY (CONCRETE SURFACES ONLY)				
Survey Performed By (Signature):				Survey Checked By (Signature):	

☑ Battery OK
☑ HV OK
☑ Source Check OK

Action Level: _____
□ µR/hr □ mR/hr □ cpm □ dpm

Grid Dimensions: 1 x 1
□ meters □ inches
☑ feet □ centimeters



Notes:
(#) - LOCATION
* - α/β TOTAL GROSS
** - α/β SMEAR GROSS

ONE MIN CTS

1-7 CONCRETE
8-10 BLACKTOP (NOT ACCESSIBLE AT THIS TIME)

BKGND
* 5/197
** 0/28

BKGND = RT SIDE INTERIOR SHOP EXIT DOOR TO OUTSIDE

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
RADIOLOGICAL SURVEY FORM

VAC Truck #19

Survey No.:	HRP 07				
Instrument/SN:	2224/119791	Calibration Due:	1/15/16	Date: 8-19-15	Time: 1040
Instrument/SN	2929/126126	Calibration Due:	4/22/16	Location: VAC TRUCK #19	
Purpose:	TRUCK 19 SURVEY/RELEASE				
Survey Performed By (Signature):	Stan Banzn			Survey Checked By (Signature):	

☒ Battery OK
☒ HV OK
☒ Source Check OK

Action Level: 200
☐ µR/hr ☐ mR/hr ☐ cpm ☒ dpm

Grid Dimensions: _____ x _____
☐ meters ☐ inches
☐ feet ☐ centimeters

	A	B	C	D	E	F	G/H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W/X	Y	Z
1	T19-1						3/166			TRANSITION HOSE												1/39		
2																								
3	T19-2						2/194			CYCLONE RETURN												0/49		
4																								
5	T19-3						1/166			CYCLONE SOLIDS REMOVAL PORT												0/24		
6																								
7	T19-4						2/107			CYCLONE EXHAUST												0/44		
8	T19-5						7/227			CHECK VALVE												1/35		
9																								
10	T19-6						23/220			BOOM INLET												0/41		
11	T19-7						26/186			VAC TANK BODY 1												1/43		
12																								
13	T19-8						6/153			VAC TANK BODY 2												1/40		
14	~~T19-9~~ (SB)																							
15																								
16	~~T19-10~~ (SB)																							
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																								

Notes: 2224 - α eff 16.38%.

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

RADIOLOGICAL SURVEY FORM

TANK TRUCK #18

Survey No.: HRP 08			
Instrument/SN: 2224	Calibration Due: 1/15/16	Date: 8-19-15	Time:
Instrument/SN 2929/126126	Calibration Due: 4/22/16	Location: VAC TRUCK #18	
Purpose: TRUCK #18 SURVEY/RELEASE		POST SURVEY	
Survey Performed By (Signature):		Survey Checked By (Signature):	

☐ Battery OK ☐ HV OK ☐ Source Check OK

Action Level: 200 ☐ µR/hr ☐ mR/hr ☐ cpm ☒ dpm

Grid Dimensions: ____ x ____ ☐ meters ☐ feet NA ☐ inches ☐ centimeters

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	~~T18~~						TOTAL α/β																SMEARS α/β			
2																										
3	T18-1						10/161				OUTER LIP OF VAC TANK												0/44			
4	T18-2						11/157				ADJACENT TO FLOAT												1/51			
5																										
6	T18-3						24/189				BOOM INLET												1/41			
7	T18-4						8/145				BAGHOUSE BASE												0/40			
8																										
9	T18-5						4/142				TOP OF BAG HOUSE												0/58			
10	T18-6						0/141				BOOM REAR CLEANOUT												0/45			
11																										
12	T18-7						6/144				8" BOOM HOSE												1/52			
13	T18-8						9/153				CYCLONE HATCH												1/40			
14																										
15	T18-9						1/148				DRIVERS SIDE FLOOR												1/41			
16	T18-10						3/150				BALL FLOAT & HATCH												3/44			
17																										
18																										
19																										
20																										
21																										
22																										
23																										
24																										
25																										

Notes: SURVEY LOCATIONS 1-10 ARE THE SAME STATIONS EVALUATED IN PRE-OPS SURVEY OF AUGUST 10, 2015. ALL VALUES in CPM

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.
RADIOLOGICAL SURVEY FORM

Survey No.: HRP 09 HAND TOOLS			Pg 1
Instrument/SN: 2929 / 126124	Calibration Due: 4/22/16	Date: 8/18/15	Time: 0830
Instrument/SN	Calibration Due:	Location: CLAREMONT POLYCHEM (HRP ASSOC.)	
Purpose: SURVEY & CLEAR			
Survey Performed By (Signature): STEVE BAKER		Survey Checked By (Signature):	
☑ Battery OK – POWER ☐ HV OK ☑ Source Check OK	Action Level: 100 dpm ☐ µR/hr ☐ mR/hr ☐ cpm ☒ dpm	Grid Dimensions: NA x ____ HAND TOOLS ☐ meters ☐ feet ☐ inches ☐ centimeters	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	#		ITEM														α	β								
2	T1		BREAKER BAR														2	51								
3																										
4	T2		LT BLUE POLE														2	37								
5	T3		THRD HOOK														1	47								
6	T4		LT BLUE POLE w/ CAPS														1	43								
7																										
8	T5		FIRE HOOK (YELLOW)														0	51								
9	T6		PIKE (YELLOW)														0	34								
10																										
11	T7		PIKE (YELLOW w/ BLACK CAP)														1	50								
12	T8		HAND PICK														2	44								
13	T9		CREW BAR														1	43								
14																										
15	T10		CHOPPER														1	42								
16	T11		FIREMAN'S TOOL														0	45								
17																										
18	T12		SHORT SPADE														1	60								
19	T13		CHOPPER														0	39								
20																										
21																						1320 hr				
22	T14		SHORT HOE														2	36								
23	T15		POWER WASH WAND														1	37								
24	T16		SHORT GUN														1	54								
25	T17		WASH HOSE														0	48								

Notes: BKG Ø, 45 - DAILY INST. CHECK DATA 8/18/15

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

RADIOLOGICAL SURVEY FORM

Survey No.: HRP09 HAND TOOLS Pg 2			
Instrument/SN:	Calibration Due:	Date:	Time: 1320
Instrument/SN	Calibration Due:	Location:	
Purpose:			
Survey Performed By (Signature): Steve Bowen		Survey Checked By (Signature):	
☒ Battery OK ☒ HV OK ☒ Source Check OK	Action Level: 100 ☐ µR/hr ☐ mR/hr ☐ cpm ☒ dpm	Grid Dimensions: _____ x _____ ☐ meters ☐ inches ☐ feet ☐ centimeters	HAND TOOL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	T	18			2nd		Hose										0/51									
2																										
3	T	19			Pylon		1										0/42									
4																										
5	T	20			3rd		hose										0/40									
6	T	21			shop		Vac	system									9/57									
7																										
8	T	22			Pylon		#2										1/45									
9	T	23			shop		Vac	handle									0/39									
10																										
11	T	24			Sledge		hammer										1/56									
12																										
13	T	25			6"		fitting										3/36									
14																										
15	~~T~~	~~25~~	(SV)		Garden		Hose																			
16																										
17																										
18																										
19																										
20																										
21																										
22																										
23																										
24																										
25																										

Notes:

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

RADIOLOGICAL SURVEY FORM

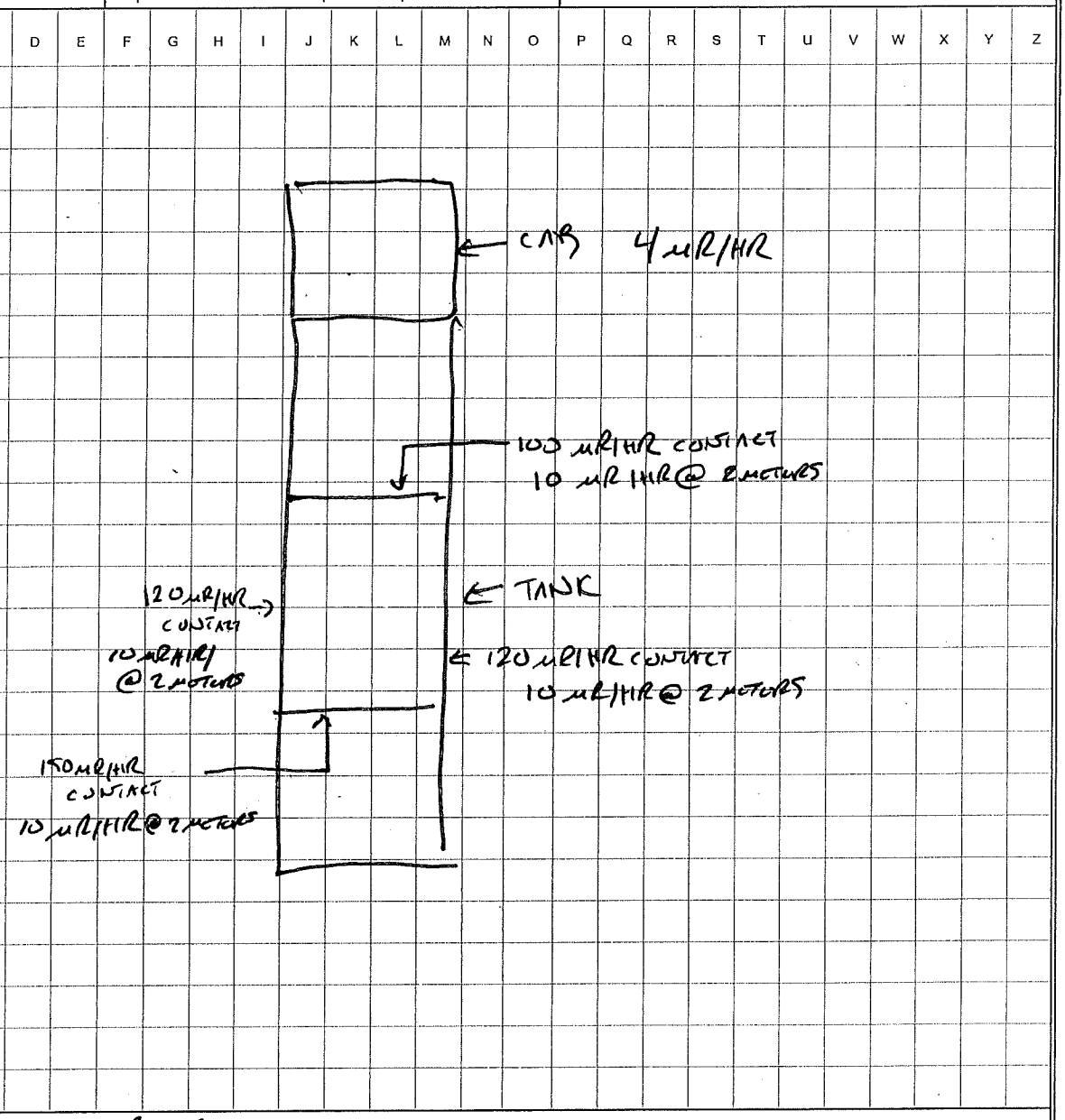
SHIPMENT 2ND BOX

Survey No.: HRP-25AUG-01			
Instrument/SN: 19/182678	Calibration Due: 23APR2016	Date: 25AUG15	Time: 0800
Instrument/SN N/A	Calibration Due: N/A	Location: HRP YARD	
Purpose: SHIPPING			
Survey Performed By (Signature):		Survey Checked By (Signature):	

☑ Battery OK
☐ HV OK
☑ Source Check OK

Action Level: N/A
☐ µR/hr ☐ mR/hr ☐ cpm ☐ dpm

Grid Dimensions: N/A x N/A
☐ meters ☐ inches
☐ feet ☐ centimeters



Notes: TRUCK VIN 1XP-HD49X-6-00165529
TRAILOR VIN 1B9D14829GB180029
TANK V3060

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

RADIOLOGICAL SURVEY FORM

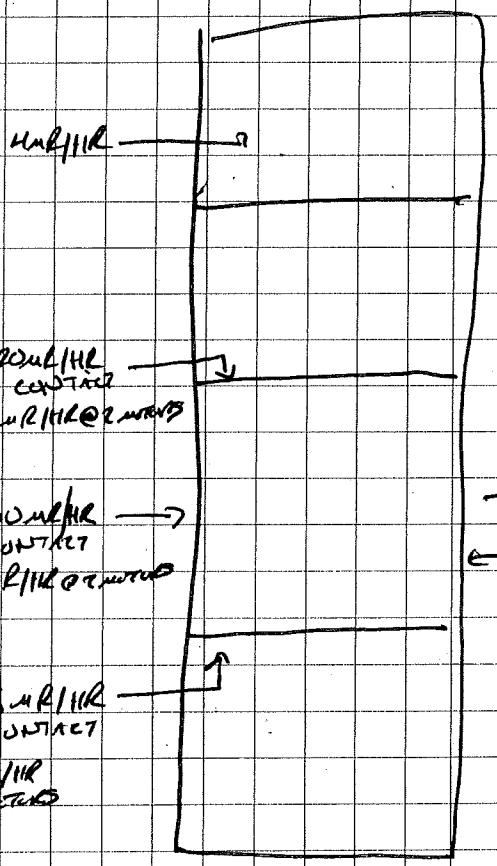
3RD SHIPMENT SEA BOX

Survey No.: HRP-25MAY-02			
Instrument/SN: 12 / 182678	Calibration Due: 23APR2016	Date: 25MAY15	Time: 0845
Instrument/SN N/A	Calibration Due: N/A	Location: HRP YARD	
Purpose: SHIPPING			
Survey Performed By (Signature):		Survey Checked By (Signature):	

☑ Battery OK
☐ HV OK
☑ Source Check OK

Action Level: N/A
☐ µR/hr ☐ mR/hr ☐ cpm ☐ dpm

Grid Dimensions: N/A x N/A
☐ meters ☐ inches
☐ feet ☐ centimeters



Notes: TRUCK VIN 1XKDD49X3EJ396525
TRAILOR VIN A841597 1B9D14824FD183085
TANK B8001

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

RADIOLOGICAL SURVEY FORM

SHIPMENT 2ND BOX

Survey No.: HRP-25Mar-03			
Instrument/SN: 2929/12C12C	Calibration Due: 15 JAN 2016	Date: 25 Mar 2015	Time: 0815
Instrument/SN N/A	Calibration Due: N/A	Location: HRP YARD	
Purpose: SHIPPING			
Survey Performed By (Signature):		Survey Checked By (Signature):	

☐ Battery OK
☒ HV OK
☒ Source Check OK

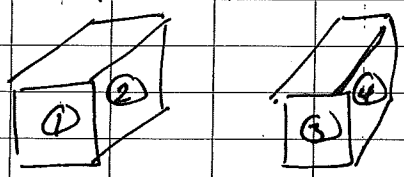
Action Level: N/A ☐ µR/hr ☐ mR/hr ☐ cpm ☐ dpm

Grid Dimensions: N/A x N/A ☐ meters ☐ feet ☐ inches ☐ centimeters

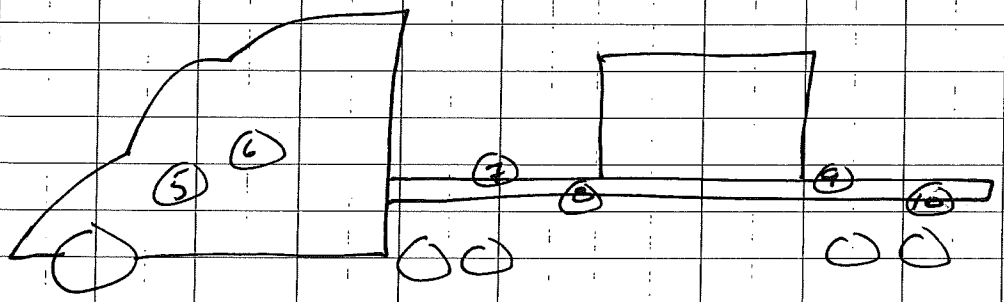
2929 BKGD = 0α 43β

TANIC V3060

(1)	0α	41β
(2)	0α	44β
(3)	0α	40β
(4)	0α	36β



DOOR END



(5)	FLOOR BOARD	0α	43β
(6)	DOOR	0α	46β
(7)	RAIL	1α	41β
(8)	RAIL	0α	39β
(9)	RAIL	0α	42β
(10)	RAIL	0α	44β

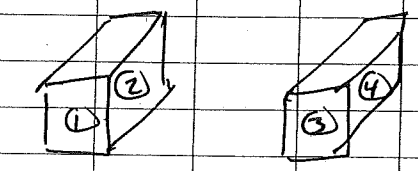
Notes: TRUCK VIN 1XP-HD49X-6-DD165529
TRAILER VIN 1 B9D14829FB180029

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

RADIOLOGICAL SURVEY FORM

SHIPMENT 3RD BOX

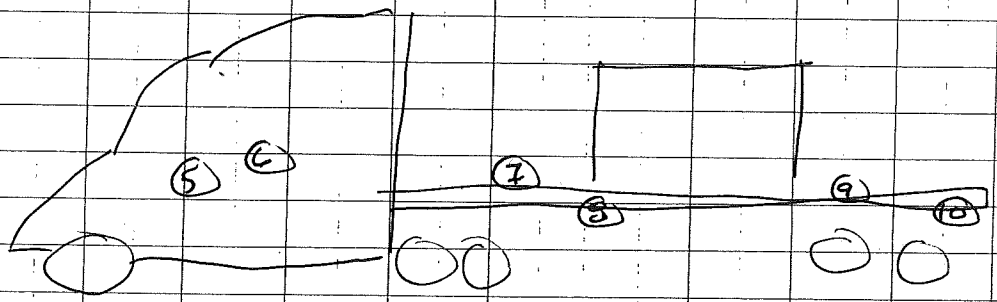
Survey No.: HRP-25AUG-04			
Instrument/SN: 2929/12612G	Calibration Due: 23MAR2016	Date: 25 AUG 2015	Time: 0940
Instrument/SN N/A	Calibration Due: N/A	Location: HRP-URA	
Purpose: SHIPPING			
Survey Performed By (Signature):		Survey Checked By (Signature):	
☐ Battery OK ☐ HV OK ☐ Source Check OK	Action Level: N/A ☐ µR/hr ☐ mR/hr ☐ cpm ☐ dpm	Grid Dimensions: N/A x N/A ☐ meters ☐ inches ☐ feet ☐ centimeters	



DOOR WALL

2929 BKGD = 0α 43β

①	1α	41β
②	0α	37β
③	0α	39β
④	0α	42β



⑤	FLOORBOARD	0α	43β
⑥	DOOR	0α	46β
⑦	RMC	0α	42β
⑧	RMC	0α	39β
⑨	RMC	1α	41β
⑩	RMC	0α	41β

Notes: TRUCK VIN 1XKDD49X3EJ396525
TRAILER VIN 1B9D14829TB183085

INTEGRATED ENVIRONMENTAL MANAGEMENT, INC.

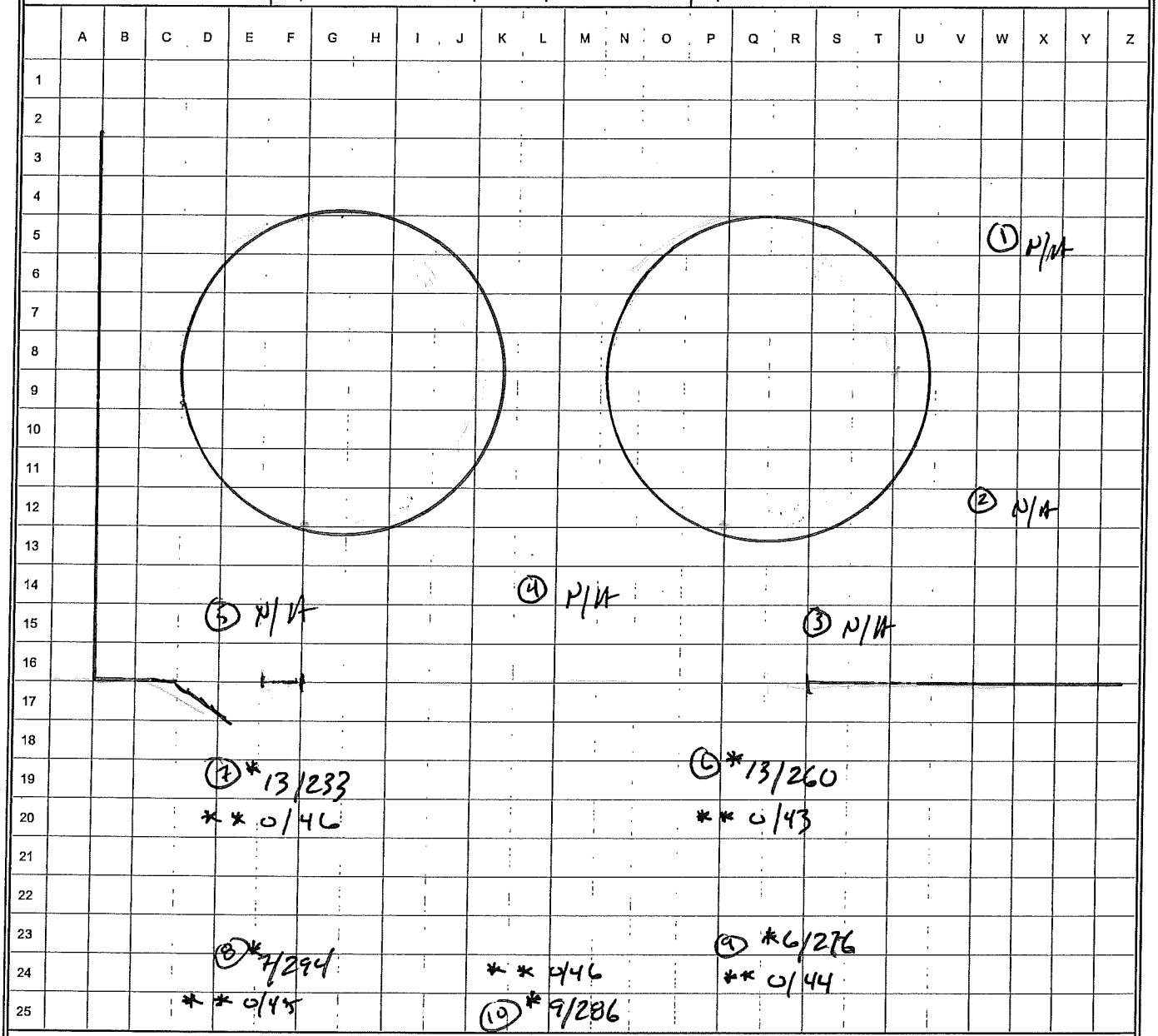
RADIOLOGICAL SURVEY FORM

Survey No.: HRP-25AUG-05			
Instrument/SN: 7224/119791	Calibration Due: 15JAN2016	Date: 25 AUG 2015	Time: 0915
Instrument/SN N/A	Calibration Due: N/A	Location: HRP YARD	
Purpose: END OF JOB			
Survey Performed By (Signature): TDS		Survey Checked By (Signature):	

☑ Battery OK
☑ HV OK
☑ Source Check OK

Action Level: N/A
□ µR/hr □ mR/hr □ cpm □ dpm

Grid Dimensions: 1 x 1
□ meters □ inches
☑ feet □ centimeters



Notes: O = LOCATIONS
*= α/β TOTAL GROSS (1 MIN COUNT)
**= α/β SWIPE GROSS (1 MIN COUNT)

6-7 · CONCRETE
8-10 · ASPHALT

CONCRETE BKGD = 7/216
ASPHALT BKGD = 9/272

ATTACHMENT G
Executed Waste Profile

WASTE PROFILE FORM

US Ecology Nevada (Beatty) 800-239-3943
US Ecology Idaho (Grand View) 800-274-1516
US Ecology Texas (Robstown) 800-242-3209
US Ecology Michigan (Detroit) 800-396-3265

PROFILE #_____

A. GENERATOR INFORMATION

1. Generator: See below	☐ Billing information is same ☐ P.O. required for payment
2. Facility Address: Claremont Polychemical site, NYS Department of Environmental Conservation (DEC)	**12. Billing Company:** Plexus Scientific Corporation d.b.a. Plexus-IEM
3. Mailing Address: 506 Winding Rd	**13. Billing Address:** 7130 Minstrel Way, Suite 215
4. City/State/Zip: Old Bethpage, NY 11804	**14. City/State/Zip:** Columbia, MD 21045
5. Technical Contact: Steven J. Baker	**15. Billing Contact:** Shah Naimi
6. Phone: 571-527-1617 **7. Fax:**	**16. Phone:** 703-820-3339 **17. Fax:** 703-845-8568
	18. Email: snaimi@plexsci.com

8. Generator Status: ☐ CESQG ☐ SQG ☐ LQG

9. EPA ID #: 816-R-05-004 **10. State ID #:**

11. SIC Codes:

B. SHIPPING INFORMATION

1. US DOT Shipping name: Radioactive material, excepted package, limited quantity

2. Hazard Class: 7 **3. UN/NA #:** 2910 **4. Packaging Group:** **5. RQ:**

6. Container Type: ☑ Bulk ☐ Totes ☐ Pallet ☐ Boxes ☐ Drums ☐ Other, **Describe:**

7. Frequency: ☐ Year ☐ Quarterly ☐ Monthly ☑ 1 time ☐ Other, **Describe:**

8. Shipment: **Size:** 5 **Quantity:** 2 to 6

9. **Waste Import:** ☐ Yes ☑ No
(If yes, complete Waste Import Supplement)

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common name for this waste: Carbon

2. Process generating the material:
Water treatment plant

3. Describe physical appearance and odor of the waste:
Black particulate similar to "coffee grounds"; less than 50% moisture.

4. Odor of the waste: ☑ None ☐ Slight ☐ Strong

5. Physical State: ☐ Liquid ☐ Sludge/Slurry ☑ Solid

6. Describe Color: Black

7. Liquid phases: ☐ Single ☐ Double Layer ☐ Multi-layer

8. Knowledge is from: ☐ Lab analysis ☑ MSDS ☐ Process/generator knowledge

9. Waste Type (US Ecology Texas customers only): ☐ N/A ☐ Industrial ☐ Non-Industrial

10. Is the waste restricted under EPA Land Disposal Restrictions (§268)? ☐ Yes ☑ No

11. If LDR "Yes", is waste: ☐ Wastewater ☐ Non-wastewater ☐ Debris (§268.2)

12. Alt. Standards for soil? ☐ Yes ☐ No

13. Is the waste RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312)? ***(If yes, complete Benzene Waste Operations Supplement Form and Thermal Supplement Form)***: ☐ Yes ☑ No

14. VO Conc.(§264.1083): ☐ <500 ppmw ☐ ≥500ppmw

15. Has waste been treated after point of generation? ☐ Yes ☑ No

16. CERCLA Regulated (Superfund) Waste: ☐ Yes ☑ No

17. Butadiene waste regulated by §63 Subpart XX: ☐ Yes ☐ No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. ***(If yes, list all UHC's in Section D):*** ☐ Yes ☑ No

19. Waste exempt from definition of "solid waste" or "hazardous waste" ***(If yes, list reference 40CFR _____):*** ☐ Yes ☑ No

20. State Waste Codes:						
21. RCRA Waste Codes:						

22. Source Code: G14 F **23. Form Code:** N/A **24. Management Code:** H _____ **(USE only)**

D. MATERIAL COMPOSITION *(use additional form if necessary)*

				Range total ≥ 100%		
Constituent	**Units**	**TCLP**	**Totals**	**Typical**	**Min**	**Max**
Ra-226/Ra-228	pCi/g dry	☐	☑	<500 pCi/g		
		☐	☐			
		☐	☐			
		☐	☐			
		☐	☐			
		☐	☐			
		☐	☐			
		☐	☐			
		☐	☐			
		☐	☐			

E. WASTE CHARACTERISTICS

1.	**Oxidizer**	☐ Yes	☑ No	**9.**	**Reactive sulfides _____ppm**	☐ Yes ☑ No
2.	**Explosive**	☐ Yes	☑ No	**10.**	**Reactive cyanides_____ppm**	☐ Yes ☑ No
3.	**Organic peroxide**	☐ Yes	☑ No	**11.**	**Water/air reactive**	☐ Yes ☑ No
4.	**Shock sensitive**	☐ Yes	☑ No	**12.**	**Thermally unstable**	☐ Yes ☑ No
5.	**Tires**	☐ Yes	☑ No	**13.**	**TSCA regulated PCB waste *(control sheet required with shipment)***	☐ Yes ☑ No
6.	**Pyrophoric**	☐ Yes	☑ No	**14.**	**Medical/infectious waste**	☐ Yes ☑ No
7.	**Compressed gas**	☐ Yes	☑ No	**15.**	**Radioactive (*If yes, complete Profile Supplement for Radioactive Waste)***	☑ Yes ☐ No
8.	**Halogenated organics**	☐ Yes	☑ No			

16. Possibility of incidental liquids from transportation? ☑ Yes ☐ No

17. Is waste a solid using the paint filter test? ☐ Yes (solid) ☐ No (not solid)

18. pH: ***(If solid, what is pH if mixed with water?)*** **Range** 5 **to** 10 **Typical** 7 ☐ ≤ 2 ☐ 2 < 12.5 ☐ ≥ 12.5

19. Flash Point: NA **º F** ☐ < 140 º F

20. Is the waste oil bearing waste from Petroleum Refining, Production or Transportation practices? ☐ Yes ☑ No

F. GENERATOR'S CERTIFICATION

☐ Yes ☐ No **I certify this material may be disposed without further treatment.**

I authorize US Ecology to correct inconsistencies on the waste profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste profile information if substantial changes are determined necessary. I understand material that does not conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties. I certify, under penalty of law, that I am familiar with this waste stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that this form was completed in accordance with the instructions provided.

Print Name	**Signature**	**Title**	**Date**

US ecology

UNIFORM RADIOACTIVE WASTE ACCEPTANCE CRITERIA SUPPLEMENT

PROFILE# 37598

A. GENERATOR INFORMATION		B. DISPOSAL SITE
1. Generator:	Clarmont Polychemical	☑ US Ecology Idaho (complete Pgs 1 and 2)
2. Common Name of Material:	Water treatment carbon with Radium	☐ US Ecology Nevada (Complete Pg 1 only)
3. Material Description:	carbon	☐ US Ecology Texas (Complete Pg 1 only)

C. Generally Exempt Unimportant Quantities of Source Material Uniformly Dispersed in Soil or other Media (< 0.05% by weight)

1. Complete this Section if waste is being profiled as generally exempt source material. Does the material contain? (check all that apply)

☐ Natural, Refined, or Depleted Uranium ☐ Thorium (Th-232) ☐ Both Uranium and Thorium

2. Source Material Sum of Fractions (SOF) Formulas:

Natural Uranium + Thorium	Refined Uranium + Thorium	Depleted Uranium + Thorium
$\frac{Conc_{U\text{-}238}}{167pCi/g} + \frac{Conc_{Th\text{-}232}}{55pCi/g} \leq 1$	$\frac{Conc_{U\text{-}Total}}{333pCi/g} + \frac{Conc_{Th\text{-}Total}}{110pCi/g} \leq 1$	$\frac{Conc_{U\text{-}238}}{169pCi/g} + \frac{Conc_{Th\text{-}232}}{55pCi/g} \leq 1$

Notes:
1. *Unless otherwise noted, use parent nuclide in equations*
2. *Th-232 will routinely be considered to be in equilibrium with all progeny.*
3. *Total Uranium = U-234 + U-235 + U-238.*
4. *Total Thorium = Th-232 + Th-228*
5. *Refined Uranium refers to chemical forms where the equilibrium state of the uranium decay chain has been disrupted.*
6. *Depleted Uranium contains U-235 at < 0.71% by weight*

3. Use this space to perform source material SOF calculations: *(if waste only contains U or Th, enter zero for other nuclide)*

D. NORM other than Uranium and Thorium Uniformly Dispersed in Soil or Other Media

1. Does the waste contain:		☑ Ra-226 / Ra-228	☐ Pb-210	☐ K-40	☐ Other(s)
2. Waste Concentration (pCi/g):		406			
Site Limits:	*USEI*	*500 / 1500[1]*	*1500*	*818[4]*	*See Site WAC or State Exemption regulations*
(all in pCi/g)	*USEN*	*5[2]*	*N/A*	*818[4]*	
	USET	*30[3]*	*150*	*818[4]*	

Notes(s):
1. Limits are for Ra-226+Ra-228 combined. 500 pCi/g is for bulk loads, up to 1500 pCi/g requires sealed IP-1 package.
2. USEN limit is for Ra-226 only.
3. Limits are for Ra-226 or Ra-228. See TCEQ regulations for other NORM exemptions.
4. K-40 may not be enriched beyond its natural concentration.

E. NRC or Agreement State Exempted Products, Devices, or Items

1. Type of exempt item(s) or product(s) N/A No. of Items: ☐ Check if additional inventory information is attached.
2. The items are exempt under: (cite regulatory reference, i.e. 10CFR30.14)

Notes:
1. Material must be transported in accordance with DOT Rules and Regulations.
2. The generator must provide an estimated inventory of activity, by isotope, for each container.
3. Individual packages may bear White I or Yellow II Labels as long as the maximum surface does rate on any package does not exceed 10 mrem/hr.
4. **Am-241 based smoke detectors are prohibited from disposal at USEN.**

F. CERTIFICATION STATEMENT:

I certify that the contents of the package(s) being shipped to Idaho are not licensed or regulated at the point of generation by the US Nuclear Regulatory Commission or an Agreement State, in accordance with N/A *(cite regulation or other document that confirms materials are not licensed by the NRC or an agreement state).*

David E. Bell/Senior VP and GC
Name / Title (please print)

Signature

August 14, 2015
Date

USEcology

UNIFORM RADIOACTIVE WASTE ACCEPTANCE CRITERIA SUPPLEMENT

PROFILE# 37598

ADDITIONAL RAD SUPPLEMENT QUESTIONS FOR SHIPMENTS TO US ECOLOGY IDAHO ONLY						
G. Particle Accelerator Produced Radioactive Material (NARM) (USEI WAC Table C.3)						
1. Was the waste generated in a particle accelerator? ☐ YES ☑ NO						
2. Estimated inventory of activity, by isotope, for each container:						
Notes: • Dose rate may not exceed 10 mrem/hr at any point on the package surface. • Containers must be **at least 90% full.**						
H. Materials Specifically Exempted by the NRC or NRC Agreement State (USEI WAC Table C.4b)						
1.	Is the material approved for disposal in accordance with 20.2008(b) or equivalent Agreement State regulation? *If yes, provide a copy of the exemption.*	Yes	☐	No	☑	
2.	Has the waste been approved by the NRC or an Agreement State for alternative disposal in accordance with 10CFR 20.2002 or an Agreement State equivalent regulation? *If yes, provide a copy of the approval request, NRC exemption, and applicable SER/FONSI.*	Yes	☐	No	☑	
3.	Was the material approved for alternate disposal via a decommissioning plan or license amendment? *If yes, provide a copy of the license or plan.*	Yes	☐	No	☑	
4.	Is the material acceptable under USEI Table C.4b as not licensed or regulated by the NRC or Agreement State under the Atomic Energy Act? *If yes, provide documentation that the radioactive material is unlicensed and refer to the applicable section(s) below (4a – 4c):*	Yes	☐	No	☑	

	Exempt Material	WAC Limit
4a.	Byproduct Material (Exempt per 10CFR30.11 or equivalent)	Sum of all isotopes < 3,000 pCi/g
4b.	Source Material (Exempt per 10CFR40.14 or equivalent)	Sum of all isotopes < 3,000 pCi/g. If waste contains both uranium and thorium, a sum of fractions (SOF) must be calculated using the limits provided below: • **Natural Uranium (in equil):** U-238 Limit = 214 pCi/g *(U-238 * 14 decay progeny < 3, 000 pCi/g)* • **Depleted Uranium:** U-238 Limit = 877 pCi/g *(Only contains U-238, Th-234, Pa-234m, U-235, and U-234)* • **Natural Thorium (in equil):** Th-232 Limit = 272 pCi/g *(Th-232 * 11 decay progeny < 3, 000 pCi/g)* Use this space for SOF calculations:
4c.	Special Nuclear Material (Exempt per 10CFR 70.17)	Sum of all isotopes < 3,000 pCi/g

For US Ecology Idaho use only:	
Which of the USEI WAC Tables apply to this profile? (Check all that apply)	**Waste Type (check only one)**
☐ Table C.1 - Unimportant Quantities of Source Material Uniformly Dispersed in Soil or other Media	☐ FUSRAP
☐ Table C.2 - NORM other than Uranium and Thorium Uniformly Dispersed in Soil or Other Media	☐ RADIOACTIVE NON-FUSRAP
☐ Table C.3 - Particle Accelerator Produced Radioactive Material (NARM)	☐ RADIOACTIVE EXEMPT ACCEL
☐ Table C.4a - NRC Exempted Products, Devices, or Items	
☐ Table C.4b - Materials Specifically Exempted by the US NRC or an NRC Agreement State	

ATTACHMENT H
Shipping Documentation

UNIFORM STRAIGHT BILL OF LADING

Original — Not Negotiable

464429

TRIAD TRANSPORT, INC.

P. O. Box 818 — McAlester, OK 74502

TEL: 918-426-4751 800-364-1139 FAX: 918-426-2865

SPLIT: ☐ YES ☐ NO EPA ID#: OKD981588791

TRUCK #: 1339

P. O. # _____ MANF#: 8284-18A-1 LOAD #: 1320535 PRO #: _____ TRAILER #: 261

ORIGIN: 0015641	DESTINATION: 0004052
SHIPPER Claremont Poly Chemical	CONSIGNEE U.S. Ecology
STREET 506 winding Rd.	STREET RT 78
CY/ST Old Bethpage NY ZIP	CY/ST Grandview ID ZIP

NO. SHIPPING UNITS	H / M	KIND OF PACKAGES DESCRIPTION OF ARTICLES (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I. D. NUMBER	PACKING GROUP	TYPE OF CONTAINER	WEIGHT SUBJECT TO CORRECTION
1		Load-					
		Pull one Loaded Box					
		#B-8002					

Subject to Section 7 of Conditions of Applicable Bill of Lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____

(Signature of Consignor)

Where the applicable tariff provisions specify a limitation of the carrier's liability (NMFC Item 172), if there is no release or value declaration by the shipper, and the shipper does not declare a value or release the carrier's liability, that liability shall be limited to the extent provided by NMFC Item 172. California intrastate shipments must comply with NMFC Item 173.

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight". NOTE—To obtain greater coverage for this shipment in excess of that afforded by the carrier's tariff, in addition to the requirements for obtaining excess coverage in such tariff, the shipper must enter the value of the shipment and check the box electing excess coverage.

_____ Per _____ VALUE: _____ CHECK HERE FOR EXCESS COVERAGE: ☐

EMERGENCY CONTACT: _____

COMMENTS: _____

	YES	NO
PLACARDS REQUIRED		✓
PLACARDS SUPPLIED BY SHIPPER		
TRIAD PLACARDS		

The property received in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or lawfully filed tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or lawfully filed tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

LINERS FURNISHED BY: ☐ TRIAD ☐ CUSTOMER / VEHICLE FURNISHED BUT NOT USED: ☐ YES ☐ NO

LOADING	ACTION	UNLOADING
_____	DATE & APPOINTMENT TIME	_____
_____	ACTUAL ARRIVAL DATE &TIME	_____
_____	DETENTION END TIME	_____

REMINDER

Wear P.P.E. when needed, be sure Trailer is Clean; Observe Facility Rules; Observe Loading/Unloading & Make Accurate Count; Be sure Manifest is Accurate & Complete; Check Compatibility of Hazardous Materials-DO NOT HAUL INCOMPATIBLE MATERIALS; Secure and Weigh Load-Check Axle Weights—DO NOT HAUL OVERWEIGHT.

LOADING OF TRIAD EQUIPMENT IS ACKNOWLEDGEMENT OF THE ACCEPTANCE BY THE CUSTOMER OF THE TERMS AND CONDITIONS PROVIDED ON THE SHIPMENT CONFIRMATION.

Equipment Condition: _____

Shipper per _____ Date 8-12-15 Consignee per _____ Date _____

Carrier per B.C.S. Date 8-12-15 Print Name: B.C. Stansell (J.R.)

Work requested outside scope of Standard Operating Procedure: _____

Person Requesting Work: **(SIGNATURE)** _____ **Date** _____

ORIGINAL (WHITE) - TRIAD YELLOW - SHIPPER PINK - CONSIGNEE GOLDENROD - DRIVER

UNIFORM STRAIGHT BILL OF LADING
Original — Not Negotiable

445292

TRIAD TRANSPORT, INC.
P. O. Box 818 — McAlester, OK 74502

TEL: 918-426-4751 800-364-1139 FAX: 918-426-2865
SPLIT: ☐ YES ☐ NO EPA ID#: OKD981588791

TRUCK #: 1401

P. O. # _____ MANF#: 445292 LOAD #: _____ PRO #: 1320384 TRAILER #: 240

ORIGIN:		DESTINATION:	
SHIPPER	Triad Transport Inc.	CONSIGNEE	Claremont Polychemical
STREET	1484 Williams, Rd.	STREET	506 Winding Rd,
CY/ST	Columbus, Oh, ZIP	CY/ST	Old Bethpage NY, ZIP

NO. SHIPPING UNITS	H / M	KIND OF PACKAGES DESCRIPTION OF ARTICLES (IF HAZARDOUS MATERIALS - PROPER SHIPPING NAME)	HAZARD CLASS	I. D. NUMBER	PACKING GROUP	TYPE OF CONTAINER	WEIGHT SUBJECT TO CORRECTION
2		EMT Vac Boxs	—	—	—	C/M	13,000
		Box# B-8001 - Good					
		Box# B-8002 - Good					

Subject to Section 7 of Conditions of Applicable Bill of Lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

_____
(Signature of Consignor)

Where the applicable tariff provisions specify a limitation of the carrier's liability (NMFC Item 172), if there is no release or value declaration by the shipper, and the shipper does not declare a value or release the carrier's liability, that liability shall be limited to the extent provided by NMFC Item 172. California intrastate shipments must comply with NMFC Item 173.

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight". NOTE—To obtain greater coverage for this shipment in excess of that afforded by the carrier's tariff, in addition to the requirements for obtaining excess coverage in such tariff, the shipper must enter the value of the shipment and check the box electing excess coverage.

_____ Per _____ VALUE: _____ CHECK HERE FOR EXCESS COVERAGE: ☐

EMERGENCY CONTACT: _____

COMMENTS: _____

	YES	NO
PLACARDS REQUIRED		✓
PLACARDS SUPPLIED BY SHIPPER		—
TRIAD PLACARDS		—

The property received in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or lawfully filed tariff if this is a motor carrier shipment. Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or lawfully filed tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

LINERS FURNISHED BY: ☐ TRIAD ☐ CUSTOMER / VEHICLE FURNISHED BUT NOT USED: ☐ YES ☐ NO

LOADING	ACTION	UNLOADING
8/11/15 Drop EMT Boxs	DATE & APPOINTMENT TIME	
8/11/15	ACTUAL ARRIVAL DATE &TIME	
8/11/15	DETENTION END TIME	

REMINDER
Wear P.P.E. when needed, be sure Trailer is Clean; Observe Facility Rules; Observe Loading/Unloading & Make Accurate Count; Be sure Manifest is Accurate & Complete; Check Compatibility of Hazardous Materials-DO NOT HAUL INCOMPATIBLE MATERIALS; Secure and Weigh Load-Check Axle Weights—DO NOT HAUL OVERWEIGHT.

LOADING OF TRIAD EQUIPMENT IS ACKNOWLEDGEMENT OF THE ACCEPTANCE BY THE CUSTOMER OF THE TERMS AND CONDITIONS PROVIDED ON THE SHIPMENT CONFIRMATION.

Equipment Condition: Good.

Shipper per _____ Date _____ Consignee per _____ Date _____

Carrier per _____ Date 8/8/15 Print Name: _____

Work requested outside scope of Standard Operating Procedure: _____

Person Requesting Work: **(SIGNATURE)** _____ Date _____

ORIGINAL (WHITE) - TRIAD YELLOW - SHIPPER PINK - CONSIGNEE GOLDENROD - DRIVER

1508186755 14780* 6704K 15400

APPROVED BY OMB NO. 3150-0164 EXPIRES: 12/31/2016

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0164), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 540 (01-2014)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 800-510-8510

ORGANIZATION: EM (Account 3386USECOLOGY)

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? ☐ YES ☑ NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST: 1

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? If "Yes," provide Manifest Number ☐ YES ☑ NO

EPA MANIFEST NUMBER:

5. SHIPPER - NAME AND FACILITY: HRP Associates - Claremont GWTP, 505 Winding Road, Old Bethpage, NY 11804

SHIPPER I.D. NUMBER: NA

☐ COLLECTOR ☐ PROCESSOR ☑ GENERATOR TYPE (Specify)

USER PERMIT NUMBER: NA

SHIPMENT NUMBER:

CONTACT: Jennifer Kotch/Peter Takach

TELEPHONE NUMBER (Include Area Code): 516-777-7242

6. CARRIER - Name and Address: Triad Transport, Inc, P.O. Box 818, Mcalester, OK 74502

EPA I.D. NUMBER: IDD073114654

SHIPPING DATE:

CONTACT: Dick Dune / B.C. STANSEL JR

TELEPHONE NUMBER (Include Area Code): 330-609-8044

SIGNATURE - Authorized carrier acknowledging waste receipt: [signature]

DATE: 8/19/15

7. NRC FORM 540 AND 540A PAGE 1 OF 1 PAGE(S); NRC FORM 541 AND 541A 1 PAGE(S); NRC FORM 542 AND 542A 1 PAGE(S); ADDITIONAL INFORMATION None PAGE(S)

8. MANIFEST NUMBER (Use this number on all continuation pages): 8281-1AA-1

9. CONSIGNEE - Name and Facility Address: US Ecology, 20400 Lemley Road, Grand View, ID 83624

CONTACT: Tino Cereceres

TELEPHONE NUMBER (Include Area Code): 800-274-1516

SIGNATURE - Authorized consignee acknowledging waste receipt: Corian Kastner

DATE: 8/18/15

10. CERTIFICATION

This is to certify that the herein-named materials are acceptable for disposal, are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the Commission.

AUTHORIZED SIGNATURE: [signature]

TITLE: Shipper

DATE: 8/12/15

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES			16. TOTAL PACKAGE ACTIVITY (MBq)	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
UN 2910, Radioactive material, excepted package-limited quantity of material, 7	NA	NA		Ra-226	Ra-228		1.4800E+02	NA	~~511200 LBS~~; 675 FT3 15000LBS	1

FOR CONSIGNEE USE ONLY

~~USE wt ok per~~

Actual received 6704K, wt ok per Steve Baker via email 8/25/15 cc

Driver released pending resolution 8/18/15

NRC FORM 540 (1-2014)

APPROVED BY OMB: NO. 3150-0166 EXPIRES: 12/31/2016

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 541 (01-2014) U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME (m³)	NET WASTE WEIGHT (kg)	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	Total
1	19.1139	5080.2349	NP	NP	NP	NP

ACTIVITY (MBq) ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)
1.4800E+02	NP	NP	NP	NP	NA

2. MANIFEST NUMBER: 8284-18A-1

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME: HRP Associates - Claremont GWTP

SHIPPER I.D. NUMBER: NA

DISPOSAL CONTAINER DESCRIPTION / WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER

5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL ☑ (uSv/hr) ☐ (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm²) ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER	13. SORBENT, SOLIDIFICATION, STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		16. WASTE CLASSIFICATION AS Class A Stable AU-Class A Unstable B-Class B C-Class C
1/8284-18A	2	19.1139	5080.2349		<3.3400E-07	<1.5700E-05	26.59-SOLID	42.8151	NA	NONE/NP	NP	Ra-226 Ra-228	7.4000E+01 7.4000E+01	NA
												Total	1.4800E+02	
Shipment Totals		19.1139	5080.2349										1.4800E+02	

Note 1: Container Description Codes. For containers/ waste requiring disposal in approved structural overpacks the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk Unpackaged Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in Item 6, or additional page

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in item 11, or additional page

Note3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "-S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in Item 13. Code 100=NONE REQUIRED

Sorption

60. Speedi Dri
61. Celetom
62. Floor Dry/ Superfine
63. Hi Dri
64. Safe T Sorb
65. Safe N Dri
66. Florco
67. Florco X
68. Solid A Sorb
69. Chemsil 30
70. Chemsil 50
71. Chemsil 3000
72. Dicapen HP200
73. Dicapen HP500
74. Petroset
75. Petroset II
76. Aquaset
77. Aquaset II
89. Other. Describe in Item 13, or additional page

Solidification

90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in Item 13, or additional page
100. None Required

APPROVED BY OMB: NO. 3150-0165
EXPIRES: 12/31/2016

NRC FORM 542
(01-2014)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators.

1 WASTE COLLECTOR/PROCESSOR

NAME: HRP Associates - Claremont GWTP

IDENTIFICATION NUMBER: 8284-18A

SHIPPING DATE: NA

SHIPPER USE ONLY

2 MANIFEST NUMBER: 8284-18A-1

3 PAGE 1 OF 1 PAGE(S)

4 GENERATOR IDENTIFICATION NUMBER	5 GENERATOR NAME PERMIT NUMBER (IF APPLICABLE) AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (m^3)	8 MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9 WASTE CODE P = PROCESSED C = COLLECTED	10 ORIGINATING COMPACT REGION OR STATE	11 AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY (MBq)	D. VOLUME (m^3)
8284-18A	HRP Associates - Claremont GWTP	505 Winding Road Old Bethpage, NY 11804		8284-18A-1 (08/11/2015)			0.0000E+00	0.0000E+00	1.4800E+02	42.8151

TOTALS OF ALL PAGES (NRC FORMS 542 AND 542A) 0.0000E+00 0.0000E+00 1.4800E+02 42.8151

15083107187 15083107191 13400 20yds B8001

APPROVED BY OMB: NO. 3150-0164
EXPIRES: 12/31/2016

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0164), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 540 (01-2014)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 800-510-8510
ORGANIZATION: EMI (Account 3388USECOLOGY)

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? ☐ YES ☑ NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST: 1

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? (If "Yes," provide Manifest Number) ☐ YES ☑ NO
EPA MANIFEST NUMBER:

5. SHIPPER - NAME AND FACILITY: HRP Associates - Claremont GWTP, 505 Winding Road, Old Bethpage, NY 11804
SHIPPER I.D. NUMBER: NA
☐ COLLECTOR ☐ PROCESSOR ☑ GENERATOR TYPE (Specify)
USER PERMIT NUMBER: NA
SHIPMENT NUMBER:
CONTACT: Jennifer Kotch/Peter Takach
TELEPHONE NUMBER (Include Area Code): 516-777-7242

6. CARRIER - Name and Address: Triad Transport, Inc, P.O. Box 818, Mcalester, OK 74502
EPA I.D. NUMBER: [illegible]
SHIPPING DATE:
CONTACT: Dick Dune / BC STANSELL TR
TELEPHONE NUMBER (Include Area Code): 330-609-8044
SIGNATURE - Authorized carrier acknowledging waste receipt: [signature]
DATE: 8/25/15

7. NRC FORM 540 AND 540A — PAGE 1 OF 1 PAGE(S)
NRC FORM 541 AND 541A — 1 PAGE(S)
NRC FORM 542 AND 542A — 1 PAGE(S)
ADDITIONAL INFORMATION — None PAGE(S)

8. CONSIGNEE - Name and Facility Address: US Ecology, 20400 Lemley Road, Grand View, ID 83624
CONTACT: Tino Cerecares
TELEPHONE NUMBER (Include Area Code): 800-274-1516
SIGNATURE - Authorized consignee acknowledging waste receipt: [signature]
DATE: 8-31-15

9. MANIFEST NUMBER (Use this number on all continuation pages): 6284-16A-0

10. CERTIFICATION
This is to certify that the herein-named materials are acceptable for disposal, are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the Commission.
AUTHORIZED SIGNATURE: [signature] TITLE: Shipper DATE: 8/25/15

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL (RADIOACTIVE)	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES				16. TOTAL PACKAGE ACTIVITY (MBq)	17. LLW/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
UN 2910, Radioactive material, excepted package-limited quantity of material, 7	NA	NA		Ra-226	Ra-228			1.4800E+02	NA	~~11200 LBS~~; 675 FT3 13400 LBS	2

FOR CONSIGNEE USE ONLY

37598-0 per Schedule 8/31/15

Driver released pending resolution
Actual received 13400#, wt OK per Steve Baker via telecom 8/31/15

NRC FORM 540 (1-2014)

APPROVED BY OMB: NO. 3150-0166 EXPIRES: 12/31/2016

NRC FORM 541 (01-2014)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME (m³)	NET WASTE WEIGHT (kg)	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	Total
1	19.1139	5080.2349	NP	NP	NP	NP

ACTIVITY (MBq) ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)
1.4800E+02	NP	NP	NP	NP	NA

2. MANIFEST NUMBER 8284-18A-2

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME HRP Associates - Claremont GWTP

SHIPPER I.D. NUMBER NA

5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL ☑ (mSv/hr) ☐ (mrem/hr)	10. SURFACE CONTAMINATION (MBq/100 cm²) ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER	13. SORBENT SOLIDIFICATION STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT (if > 0.1%)	15. INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL, OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT	16. WASTE CLASSIFICATION AS-Class A Stable AU-Class A Unstable B-Class B C-Class C
2/8284-18A	2	19.1139	5080.2349		<3.3400E-07	<1.6700E-05	26,59-SOLID	42.9151	NA	NONCNP	NP	Ra-226 7.4000E+01 Ra-228 7.4000E+01	NA
												Total 1.4800E+02	
Shipment Totals		19.1139	5080.2349									1.4800E+02	

Note 1: Container Description Codes. For containers/ waste requiring disposal in approved structural overpacks the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk Unpackaged Waste
12. Unpackaged Components
13. High Integrity Container
15. Other. Describe in item 6, or additional page

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
59. Other. Describe in item 11, or additional page

Note3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "-S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in item 13. Code 100=NONE REQUIRED.

Sorption

60. Speedi Dri
61. Celetom
62. Floor Dry Superfine
63. Hi Dri
64. Safe T Sorb
65. Safe N Dri
66. Florco
67. Florco X
68. Solid A Sorb
69. Chemsil 30
70. Chemsil 50
71. Chemsil 2020
72. Dicaperl HP500
73. Dicaperl HP500
74. Petroset
75. Petroset II
76. Aquaset
77. Aquaset II
79. Other. Describe in item 13, or additional page

Solidification

80. Cement
81. Concrete (encapsulation)
82. Bitumen
83. Vinyl Chloride
84. Vinyl Ester Styrene
99. Other. Describe in item 13, or additional page
100. None Required

APPROVED BY OMB: NO. 3150-0165
EXPIRES: 12/31/2016

NRC FORM 542
(01-2014)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

MANIFEST INDEX AND REGIONAL COMPACT TABULATION

List all original "PROCESSED WASTE" generators (if any) before "COLLECTED WASTE" generators.

1. WASTE COLLECTOR/PROCESSOR

NAME: HRP Associates - Claremont GWTP

IDENTIFICATION NUMBER: 8284-18A

SHIPPING DATE: NA

SHIPPER USE ONLY

2. MANIFEST NUMBER: 8284-18A-3

3. PAGE 1 OF 1 PAGE(S)

4. GENERATOR IDENTIFICATION NUMBER	5. GENERATOR NAME, PERMIT NUMBER (IF APPLICABLE) AND TELEPHONE NUMBER	6. GENERATOR FACILITY ADDRESS	7. PREPROCESSED WASTE (OR MATERIAL) VOLUME (m^3)	8. MANIFEST NUMBER(S) UNDER WHICH WASTE (OR MATERIAL) RECEIVED AND DATE OF RECEIPT	9. WASTE CODE P = PROCESSED C = COLLECTED	10. ORIGINATING COMPACT REGION OR STATE	11. AS PROCESSED/COLLECTED TOTAL A. SOURCE MATERIAL (kg)	B. SNM (g)	C. ACTIVITY (MBq)	D. VOLUME (m^3)
8284-18A	HRP Associates - Claremont GWTP	500 Winding Road Old Bethpage, NY 11804		8284-18A-1 (08/11/2015)			0.0000E+00	0.0000E+00	1.4800E+02	42.8151
				TOTALS OF ALL PAGES (NRC FORMS 542 AND 542A)			0.0000E+00	0.0000E+00	1.4800E+02	42.8151

20yds

29520p

15083107192

APPROVED BY OMB: NO. 3150-0164 EXPIRES: 12/31/2016

Estimated burden per response to comply with this information collection request: 45 minutes. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the FOIA, Privacy and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0164), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 540 (01-2014)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

SHIPPING PAPER

1. EMERGENCY TELEPHONE NUMBER (Include Area Code): 800-510-6510

ORGANIZATION: EM (Assoc. of US ECOLOGY)

2. IS THIS AN "EXCLUSIVE USE" SHIPMENT? ☐ YES ☑ NO

3. TOTAL NUMBER OF PACKAGES IDENTIFIED ON THIS MANIFEST: 1

4. DOES EPA REGULATED WASTE REQUIRING A MANIFEST ACCOMPANY THIS SHIPMENT? ☐ YES ☑ NO — If "Yes," provide Manifest Number

EPA MANIFEST NUMBER:

5. SHIPPER - NAME AND FACILITY: HRP Associates - Claremont GWTP, 505 Winding Road, Old Bethpage, NY 11804

USER PERMIT NUMBER: NA

SHIPMENT NUMBER:

CONTACT: Jennifer Ketch/Peter Takach

SHIPPER I.D. NUMBER: NA

☐ COLLECTOR ☐ PROCESSOR ☑ GENERATOR TYPE (Specify)

TELEPHONE NUMBER (Include Area Code): 516-777-7242

6. CARRIER - Name and Address: Triad Transport, Inc, P.O. Box 818, McAlester, OK 74502

EPA I.D. NUMBER: IDD073114654

SHIPPING DATE:

CONTACT: Dick Dune / MITCHELL J. HYATT

TELEPHONE NUMBER (Include Area Code): 330-609-8044

SIGNATURE - Authorized carrier acknowledging waste receipt: [signature]

DATE: 8/25/15

7. NRC FORM 540 AND 540A — PAGE 1 OF 1 PAGE(S)

NRC FORM 541 AND 541A — 1 PAGE(S)

NRC FORM 542 AND 542A — 1 PAGE(S)

ADDITIONAL INFORMATION — None PAGE(S)

8. MANIFEST NUMBER (Use this number on all continuation pages): 6284-18A-3

9. CONSIGNEE - Name and Facility Address: US Ecology, 20400 Lemley Road, Grand View, ID 83624

CONTACT: Tino Ceraceres

TELEPHONE NUMBER (Include Area Code): 800-274-1516

SIGNATURE - Authorized consignee acknowledging waste receipt: [signature] Jennifer Little

DATE: 8-31-15

10. CERTIFICATION

This is to certify that the above-named materials are acceptable for disposal, are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation and the Commission.

AUTHORIZED SIGNATURE: [signature]

TITLE: [signature]

DATE: 8/25/15

11. U.S. DEPARTMENT OF TRANSPORTATION DESCRIPTION (Including proper shipping name, hazard class, UN ID number, and any additional information)	12. DOT LABEL "RADIOACTIVE"	13. TRANSPORT INDEX	14. PHYSICAL AND CHEMICAL FORM	15. INDIVIDUAL RADIONUCLIDES				16. TOTAL PACKAGE ACTIVITY (MBq)	17. LSA/SCO CLASS	18. TOTAL WEIGHT OR VOLUME (Use appropriate units)	19. IDENTIFICATION NUMBER OF PACKAGE
UN 2910, Radioactive material, excepted package-limited quantity of material, 7	NA	NA		Ra-226	Ra-228			1.4800E+02	NA	~~11200 LBS~~; 675 FT3 8000 LBS	3

FOR CONSIGNEE USE ONLY

37598-0 per Schedule 8/31/15 cr

Driver released pending resolution

Actual received 29520#, tot ok per steve Baker via telecom 8/31/15

NRC FORM 540 (1-2014)

APPROVED BY OMB: NO. 3150-0166
EXPIRES: 12/31/2016

Estimated burden per response to comply with this information collection request: 3.3 hours. This uniform manifest is required by NRC to meet reporting requirements of Federal and State Agencies for the safe transportation and disposal of low-level waste. Send comments regarding burden estimate to the FOIA, Privacy, and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0166), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

NRC FORM 541 (01-2014)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

CONTAINER AND WASTE DESCRIPTION

Additional Nuclear Regulatory Commission (NRC) Requirements for Control, Transfer and Disposal of Radioactive Waste

1. MANIFEST TOTALS

NUMBER OF PACKAGES/ DISPOSAL CONTAINERS	NET WASTE VOLUME (m³)	NET WASTE WEIGHT (kg)	SPECIAL NUCLEAR MATERIAL (grams) U-233	U-235	Pu	Total
1	19.1139	5080.2349	NP	NP	NP	NP

ACTIVITY (MBq) ALL NUCLIDES	TRITIUM	C-14	Tc-99	I-129	SOURCE (kg)
1.4800E+02	NP	NP	NP	NP	NA

2. MANIFEST NUMBER: 8284-18A-3

3. PAGE 1 OF 1 PAGE(S)

4. SHIPPER NAME: HRP Associates - Claremont GWTP

SHIPPER I.D. NUMBER: NA

DISPOSAL CONTAINER DESCRIPTION / WASTE DESCRIPTION FOR EACH WASTE TYPE IN CONTAINER

5. CONTAINER IDENTIFICATION NUMBER/ GENERATOR ID NUMBER(S)	6. CONTAINER DESCRIPTION (See Note 1)	7. VOLUME (m³)	8. WASTE AND CONTAINER WEIGHT (kg)	9. SURFACE RADIATION LEVEL ☑ (uSv/hr) ☐ (mSv/hr)	10. SURFACE CONTAMINATION (MBq/100 cm²) ALPHA	BETA-GAMMA	11. WASTE DESCRIPTOR (See Note 2)	12. APPROXIMATE WASTE VOLUME(S) IN CONTAINER	13. SORBENT SOLIDIFICATION, STABILIZATION MEDIA (See Note 3)	14. CHEMICAL FORM/ CHELATING AGENT	WEIGHT % CHELATING AGENT IF > 0.1%	15. INDIVIDUAL RADIONUCLIDES AND ACTIVITY (MBq) AND CONTAINER TOTAL OR CONTAINER TOTAL ACTIVITY AND RADIONUCLIDE PERCENT		16. WASTE CLASSIFICATION AS Class A Stable AU-Class A Unstable B-Class B C-Class C
[illegible]	2	19.1139	5080.2349		[illegible]	[illegible]	[illegible]	19.1139	NA	NONE/NP	NP	Ra-226 Ra-228	7.4000E+01 7.4000E+01	NA
												Total	1.4800E+02	
Shipment Totals		19.1139	5080.2349										1.4800E+02	

Note 1: Container Description Codes. For containers/waste requiring disposal in approved structural overpacks the numerical code must be followed by "-OP."

1. Wooden Box or Crate
2. Metal Box
3. Plastic Drum or Pail
4. Metal Drum or Pail
5. Metal Tank or Liner
6. Concrete Tank or Liner
7. Polyethylene Tank or Liner
8. Fiberglass Tank or Liner
9. Demineralizer
10. Gas Cylinder
11. Bulk Unpackaged Waste
12. Unpackaged Components
13. High Integrity Container
19. Other. Describe in item 6, or additional page

NOTE 2: Waste Descriptor Codes. (Choose up to three which predominate by volume.)

20. Charcoal
21. Incinerator Ash
22. Soil
23. Gas
24. Oil
25. Aqueous Liquid
26. Filter Media
27. Mechanical Filter
28. EPA or State Hazardous
29. Demolition Rubble
30. Cation Ion-exchange Media
31. Anion Ion-exchange Media
32. Mixed Bed Ion-exchange Media
33. Contaminated Equipment
34. Organic Liquid (except oil)
35. Glassware or Labware
36. Sealed Source/Device
37. Paint or Plating
38. Evaporator Bottoms/Sludges/Concentrates
39. Compactible Trash
40. Noncompactible Trash
41. Animal Carcass
42. Biological Material (except animal carcass)
43. Activated Material
55. Other. Describe in item 11, or additional page

Note3: For solidification media that meet disposal site structural stability requirements, the numerical code must be followed by "-S." For all solidification media, the vendor (manufacturer) and brand name must also be identified in Item 13. Code 100=NONE REQUIRED.

Sorption

60. Speedi Dri
61. Celetom
62. Floor Dry/ Superfine
63. Hi Dri
64. Safe T Sorb
65. Safe N Dri
66. Florco
67. Florco X
68. Solid A Sorb
69. Chemsil 20
70. Chemsil 50
71. Chemsil 3050
72. Dicaperl HP200
73. Dicaperl HP500
74. Petroset
75. Petroset II
76. Aquaset
77. Aquaset II
89. Other. Describe in item 13, or additional page

Solidification

90. Cement
91. Concrete (encapsulation)
92. Bitumen
93. Vinyl Chloride
94. Vinyl Ester Styrene
99. Other. Describe in item 13, or additional page
100. None Required

APPROVED BY OMB: NO. 3150-0165
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NRC FORM 542
(01-2014)

U.S. NUCLEAR REGULATORY COMMISSION

UNIFORM LOW-LEVEL RADIOACTIVE WASTE MANIFEST

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IDENTIFICATION NUMBER: 8284-18A

SHIPPING DATE: NA

SHIPPER USE ONLY

2. MANIFEST NUMBER: 8284-18A-3

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8284-18A	HRP Associates - Claremont GWTP	500 Winding Road Old Bethpage, NY 11804		8284-18A-1 (08/11/2015)			0.0000E+00	0.0000E+00	1.4800E+02	42.8151

TOTALS OF ALL PAGES (NRC FORMS 542 AND 542A) 0.0000E+00 | 0.0000E+00 | 1.4800E+02 | 42.8151

ATTACHMENT I
Certificates of Disposal

CERTIFICATE OF DISPOSAL

September 04,2015

CLAREMONT POLYCHEMICAL, NYS DEPT. OF ENV. CONSERVATION
505 WINDING ROAD
OLD BETHPAGE, NY 11804

This is to certify that waste as defined on Waste Manifest number **8284-18A-1/** was received by U.S. Ecology, Inc., on **08/18/2015**.The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of on **08/18/2015** in accordance with permits and laws regulating this facility.

Reference Number: 15081806735-8284-18A-1-1-1
Material: 1 ROLL-OFF
Process: Direct Landfill
Management Code:
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Stream #: 37598-0
Waste Type: NON HAZARDOUS WASTE
Customer: PLEXUS SCIENTIFIC CORPORATION D.B.A. PLEXUS-IEM

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

September 01,2015

CLAREMONT POLYCHEMICAL, NYS DEPT. OF ENV. CONSERVATION
505 WINDING ROAD
OLD BETHPAGE, NY 11804

This is to certify that waste as defined on Waste Manifest number **8284-18A-2/** was received by U.S. Ecology, Inc., on **08/31/2015**.The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of on **08/31/2015** in accordance with permits and laws regulating this facility.

Reference Number: 15083107191-8284-18A-2-1-1
Material: 1 VACUUM BOX
Process: Direct Landfill
Management Code:
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Stream #: 37598-0
Waste Type: NON HAZARDOUS WASTE
Customer: PLEXUS SCIENTIFIC CORPORATION D.B.A. PLEXUS-IEM

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR

CERTIFICATE OF DISPOSAL

September 01,2015

CLAREMONT POLYCHEMICAL, NYS DEPT. OF ENV. CONSERVATION
505 WINDING ROAD
OLD BETHPAGE, NY 11804

This is to certify that waste as defined on Waste Manifest number **8284-18A-3/** was received by U.S. Ecology, Inc., on **08/31/2015**.The waste(s) were subsequently treated, if required by 40 CFR Part 268 and U.S. Ecology's permits and disposed of on **08/31/2015** in accordance with permits and laws regulating this facility.

Reference Number: 15083107192-8284-18A-3-1-1
Material: 1 VACUUM BOX
Process: Direct Landfill
Management Code:
Facility: U.S. ECOLOGY IDAHO, INC.
20400 LEMLEY ROAD
GRAND VIEW, ID 83624
EPA ID: IDD073114654
Waste Stream #: 37598-0
Waste Type: NON HAZARDOUS WASTE
Customer: PLEXUS SCIENTIFIC CORPORATION D.B.A. PLEXUS-IEM

Printed Name: DONNA PULLEN

Signature: Donna Pullen

Title: RECEIVING SUPERVISOR