MANUAL PET-HSE27-HH-MAN-00003 Hearing Fit Testing – VeriPRO - Instruction



Objective

To describe the process to complete hearing fit testing using the VeriPRO device to monitor a worker's ability to effectively fit earplug hearing protection, and to ensure earplugs provide a sufficient level of protection.

Audience

BHP HSE Business Partnership (BP) and site-based medics.

Owner

Annette Bisby, Head of Health & Safety - Corporate

Document Signatures (e-signatures are permissible)

	Business Role	Name	Signature
Approver	VP HSEQ Project	Karelis Holuby	Signature on file – refer to Memorandum: Heritage BHP Petroleum HSE MS Post- Merger Update

Disclaimer:

This document has been updated to meet post-merger requirements. Updates have been restricted to rebranding of logo, company name and revision number and date. Updates have not impacted the design or functionality, or taken away from original intent, of the document.

PET-HSE27-HH-MAN-00003

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Equipment

1. Calibration

- The equipment calibration must be verified prior to conducting fit testing. There is a sticker on the bottom of the processing unit.
- The VeriPRO device shall be calibrated annually by the manufacturer (Honeywell). Email <u>hsprepairs@honeywell.com</u> for a Return Merchandise Authorization (RMA), and include your name and contact details (phone, email address, postal address). If you have any questions, you can contact Honeywell at 1 877 837 4776.
- The calibration records shall be maintained in the Cority Industrial Hygiene equipment module. Only Cority users
 will be able to update the calibration records in Cority. Cority users are:
 - Medics at each Production Unit
 - Houston Health Service
- Below are the instructions on how to update the VeriPRO calibrations in Cority.

Step	Instructions	Cority Screenshot								
1	 a. Open Cority PROD instance and go to "Industrial Hygiene" suite b. Go to "Equipment" module. c. To find the VeriPRO device, you may need to check your view and search. Open your VeriPRO device by clicking on it 	COCREASE Autorial Hygiene C Survey Marken Lab Requisition Autoring SEG Management Begionent Endings & Actions AirA Spreadsheet Documents Letters Questionnaire Inbox Questionnaire	Y favortes Occupational Head Equipment Image: Comparison of the second Head Image: Comparison of the second Head	Actions Description Veripro VeriPRO	Company 990 Company 979 owned 959	Admensionator Admensionator Acsigned Too Cheramie, Steven (20059309) Cheramie, Steven (20059309) Cheramie, Steven (20059360)	View Active - Corr Catibration Period Annually Annually Annually	npany Owned Last Calibration mm/ddyyyy 01/25/2018 01/24/2018 04/30/2019	Date Next Calibr mm/ddyyyy 01/25/2019 01/24/2019 04/30/2020	e 🖉 Edit ation Date E

2	 a. Update "Calibration and Maintenance" section on the "Equipment" tab. b. Save changes. 	IH Equipment (De Equipment Ma b Save Sove Details Equipment Code * Model Supplier Equipment Type * Monitoring / Noise Monitoring / Noise Monitorin	evices) Image: Calibration/Inspection History intenance History Calibration/Inspection History ave and Close Image: Delete Cancel Actions (HP FIT HOU (VenPRO (VenPRO (VenPRO) Company owned (COMP) Monitoring (Gan, Jaime (20095460) (VenPRO) (DR CALIBRATION /MAINTENANCE Email service request to heprepairs@honeywe Honeyvell as directed. Payment must be made (M430/2019) (Manually (Manually	H) 10 0 Q 0 Q 0 Q 1 Q ell.com H) 1 1 1 1 1 1 1 1 1 1 1 1 1	Equipment Documents Description Equipment Number • Purchase Date Calibrator Direct Reading Status Reminders Sent to obtain RNA number 4 credit card for US ser Calibration Cost Next Calibration/Inspection Date	Layouts [H Equipment VenPRO 959 02/07/2015 Active / in use onsite (A) 0 documents. Package & send unit vices contact HSE Planner for of 120 04/30/2020	t (Devices) V
		Period * Last Maintenance Date Maintenance Type Calibration/Inspection History	02/28/2018 Replaced audio processor and headphones) #	Next Maintenance Date	mm/dd/yyyy	
							~
		Department (1SAP	Patrolaum/PI IS1)		Division (1SAP Personnel		
		Personnel Area) * Geographic Location (1SAP	Petroleum(POST)) =u	Subarea) Location (1SAP Cost		
		HR Entity)	Petroleum(PET)	j™t#)	Centre) Building (Contracting		
		Organization)	Occupational Health & Hygiene(30001866)	J•₩)	Company)		
		Floor Area] •4	Country	UNITED STATES (US)	Q
			Houston Office				
3	a. Go to the "IH Equipment Documents" tab b. Select "New"	IH Equipment (De Equipment Mai H Equipment Documents Deven T Calibration Ce Calibration Ce Calibration Ce	vices) Image: Calibration/Inspection Histor Calibration/Inspection Histor Actions Perception rtificate VERIPRO Cal Cert 20190314 Unit 959 vitificate VERIPRO Cal Cert 20180228 Unit 959 vitificate VERIPRO Cal Cert 20170116 Unit 959	IH Eq	View w/ descri Document Date 4 03/14/2019 02/28/2018 02/13/2017	iption C Edit V Received From Honeywell Honeywell Honeywell	Fiew ➡ Create View Created Date 04/02/2019 1136 03/08/2018 1002 02/13/2017 1355
4	 a. Select document type ie calibration certificate b. Enter document date c. Browse for where you saved the calibration certificate d. Enter description using naming convention e. Save and Close 	IH Document Document New Stee Save	and Close T Delete O Cancel Actions Calibration Certificate (CAL) Upment RIPRO Cal Cert 20190314 Unit 959.pdf Coneywell ERIPRO Cal Cert 20190314 Unit 959 C		cument Date * Source Id rowse	Layouts []H Docume [03/14/2019 HP FIT HOU	ents (GRP-000 V
		L					

Testing Process

 Currently, only earplugs can be fit tested using VeriPRO. Earmuffs cannot be fit tested. If using a BHP Houston VeriPRO laptop, the generic username and password should be located on the laptop. Never link the laptop to a BHP LAN or BHP wifi, as either will delete the generic user account and all the associated VeriPRO data saved to the laptop hard drive.

2.1 Testing Location and Set Up

 Initial set up of the VeriPRO device is outlined in Appendix 1. VeriPRO testing shall be performed in a quiet location with limited distractions.

2.2 Testing Process

- Identification, tracking and scheduling of hearing protection fit testing is the responsibility of the worker's employer. For BHP employees and agency contractors this identification, tracking and scheduling will be completed by the BHP HSE Business Partners (BPs) using the Cority Hearing Conservation Compliance report. If changes are needed to the enrollments, HSE BP is to contact Cority System Administrator.
- When scheduling a hearing protection fit test, the worker shall be told to bring:
 - The earplugs they usually use with them to the testing appointment along with the details of the earplug's manufacturer and product name.
 - For BHP employees and agency contractors they need to bring their 1SAP employee identification number (starts with 200 for BHP employees, and 800 for agency contractors).
- The tester shall perform hearing protection fit testing using a calibrated VeriPRO device following the instructions provided in Appendix 2.
- The results shall be explained to the worker and a printed copy of the report provided.
- For BHP employees and Agency Contractors, the results shall be uploaded into Cority. You will need to export the
 details of all of your tests into Excel and then upload it to Cority. Details of how to export the Excel spreadsheet are in
 Appendix 3, and details on how to upload the results to Cority are outlined in Appendix 4.

Appendix

Appendix 1 – VeriPRO – Preference Settings (One Off)

The following outlines how to set up the preference settings required when setting up VeriPRO for the first time.

Step	Instructions	VeriPRO Screenshot
1	 a. Open VeriPRO b. Click the toolbox button – enter "password" as password. 	E VeriPRO -
		Main Menu Step 1 - Select Name Step 2 - Select Option Figure and stick to highlight a name on the list, Pisase select an option from the menu below
		cr add a new name in the Toolbox menu Search for a user: James Bond COM007 Password Enter Password Difference Fit Training Reports Reports
2	a Salact "Proformace" from the list	▼ - □ ×
2	a. Select Freielences non the list.	EVeriPRO From Howard Leights A personal approach to Hearing Conservation
		Step 1 - Select Name South and solid is highlights areas on the flat Search for a user:

Step	Instructions	VeriPRO Screenshot
3	 a. Set rating method to "NRR" b. Set safe noise criterion to "82"(dBA) c. Leave all other field as default 	Image: Sector of the length Image: Sector of the length

Appendix 2 – VeriPRO Testing Instructions

The following outlines how to conduct a VeriPRO hearing protection fit test. If you require further information, please consult the quick reference guide located with the VeriPRO device, or the <u>VeriPRO Quick Reference Guide</u>.

When using the VeriPRO NEVER delete any of the workers, this will result in loss of records.

Step	Instructions	VeriPRO Screenshot
1	 a. Introduce yourself b. Explain that the purpose of the hearing protection fit test is to verify the worker can correctly fit their earplugs, and the earplugs provide sufficient protection. c. Briefly explain the process. d. Ask worker which earplugs they usually use in the workplace. e. Ask the worker to fit the earplugs and check the fit. Provide coaching to the worker to improve fitting of earplugs if needed. 	Foll: With clean hands, firmly roll entire ear plug between thumb and fingers to form a thin, tight cylinder.Insert: Using one hand, genty lift top of ear up to open ear canal. With other hand, insert rounded end of ear plug.Insert: With clean hands, genty lift top of ear up to open ear canal. With other hand, insert rounded end of ear plug.Insert: With clean hand, genty lift top of ear up to open ear canal. With other hand, insert rounded end of ear plug.Insert: With forefinger, hold ear plug in place for 30 to 45 seconds to form a comfortable, snug fit.Correct: When inserted correct, the flat side of the ear plug is positioned at opening of the ear canal.

Step	Instructions	VeriPRO Screenshot
2	Select Worker Open VeriPRO a. Select worker's name to highlight it b. Click on "Quick Check" button, and go to next step If worker's name does not appear on the list, go to step 7	<image/>
3	 Iesting – Earplug Selection Click on the "CONTINUE" button. a. Select the earplug the worker reported they usually use in step 1 b. Click on "NEXT." 	Image: Control of the stand generation of the s
	 c. If their earplug is not displayed select "Other Earplug" d. Click on the "NEXT" button. e. Select earplug from list. f. Click on "OK" button 	<page-header></page-header>

Step	Instructions	VeriPRO Screenshot
	 g. If it is not displayed click on "Add Earplug" h. Enter earplug name, i. Enter Noise Reduction Rating (NRR) found on packaging or manufacturer's website. j. Click "Save." Highlight earplug and click "OK." 	User: Clark Kent Earplag: Set-up Pert 1 Pert 2 Pert 3 Percha Sigle-Use Earplag: Set-up Pert 1 Pert 3 Percha Sigle-Use Earplag: Set-up Pert 1 Pert 3 Percha Sigle-Use Earplag: Set-up Percha Percha Percha Sigle-Use Earplag: Set-up Percha Set-up NEXT Nutriple-Use Earplag: Set-up Set-up Set-up NEXT Sigle-Use Earplag: Set-up Set-up Set-up NEXT
4	 Testing – Without Earplugs a. Explain the testing process to the worker. Note: Worker should not wear any earplugs at the start of the test. b. Worker to place headphones over their ears as shown: right ear = red, left ear = blue. c. Click "CONTINUE." 	Iter: Clark Kent Earplug: Laser Lite0 Set-up Pert 3 Pert 3
	 d. Ask worker to slide the blue bubble up/down the vertical bar until the pulsing tones in their left ear and right ears are the same. e. Worker selects match. This process will be repeated at several frequencies. NOTE: If the worker is unable to match the tone, then try clicking on the double arrows, at the top and bottom of the slider bar, to move to a higher or lower range. 	Use:: Clark Kent Earplug: Laser Lite® Set-up Part Part Part Part P

Step	Instructions	VeriPRO Screenshot
	 Testing – Earplug Check f. Ask worker to remove headphones, fit right earplug only, and put headphones back on g. Click on "CONTINUE". Worker to follow the same process as above to match the tones using the blue bubble. 	User: Clark Kent Earplug: Laser Lite® Set-up Part 1 Part 2 Part 3 Results
	 h. Ask worker to remove headphones, fit left earplug as well, put headphones back on. i. Click on "CONTINUE". As before the worker will use the blue bubble to match the tones in both ears. When the test is finished, click on "CONTINUE." 	<image/> <section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><text><text><text></text></text></text></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>
5	Result Report - View on screen a. Select "View on Screen."	Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second approach to Bearing Conservation Image: Second

Step Instructions **VeriPRO Screenshot Results Report** Hearing Protector Individual Report **VeriPRO** Explain the outcome of the test User: Clark Kent Test Date: May 01, 2019 b. Protected Exposure Level Department: HSE <82dBA = earplugs provide Location: Houston adequate protection based on the ID #: CON001 87 dBA SEG exposure entered, worker has Exposure: TrustFit™ Pod Earplug: PASSED the test. ≥82dBA = earplug does not provide **Quick Check Result** Left Ear Right Ear Attenuation adequate protection, worker has The amount of protection provided by the 10 dBA 12 dBA 28 dB FAILED the test, you must retest: earplug. Provide further education and return to step 2 to repeat the Safe Exposure Level rotected Exposure Level The estimated noise level reaching this worker's eardrum with this earplug fit.† test. The highest level of noise to which a 95 dBAL 77 dBA worker can be safely exposed with this Return to step 2 BUT use the earplug fit.* "Complete Check" test with the same earplug. dB **Extreme Noise** Use a different type of earplug 115+ Short, unprotected exposures can cause hearing damage and return to step 2 to repeat the test. Hazardous Noise 90-115 Frequent, unprotected exposures can cause hearing damage If after education and trying at least 3 Your Safe Exposure Level with this fit of earplugs 95 dB different earplugs the worker was unable to pass the test, the worker must use **Required Protection Level** earmuffs. This needs to be documented on the printed report and scanned and **Recommended Protection Level** Your Protected Exposure Level 77 dB with this fit of earplugs retained in Cority. 70-85 Protected Noise Exposures in this range are generally safe c. Quick Check Result **Risk of Overprotection** Shows how much protection the The earplugs you are using may be overprotective, blocking sounds you need to hear such as warning signals and co-workers voices <70 worker achieved in their left and right ears compared to the level of protection they should have gotten dB Your Reported Exposure Level: 87 dB if fitted properly. In this example the worker * Calculated from the protection level of the least protected ear FIGHT achieved 10-12dBA of protection by Honeywell but should have gotten 28 dBA of protection, they failed to fit the Page earplug properly. The process outlined above should be followed From Howard Leight® **VeriPRO**[®] to retest the worker. A personal approach to Hearing Conservation NOTE: VeriPRO has training on how to fit earplugs select one of the "Fit Training" Main Menu icons, or use this link: How to Fit Earplugs Step 1 - Select Name Step 2 - Select Option roll and click to highlight a add a new name in the Tool Search for a user CON007 James Bond Clark Kent **CON001**

Step	Instructions	VeriPRO Screenshot
6	Conclusion	
	 Provide worker with PDF copy of re Check if worker has any final quest 	port (use the print icon at the top left of the report screen).
7	Create new worker a. Click on toolbox button – enter "password" as the password. b. Select "Manage Entries"	<page-header><page-header><image/><image/><image/><section-header><section-header></section-header></section-header></page-header></page-header>
8	Select "Add User"	VeriPRO
9	 Fill in the following fields a. Worker's first and last name b. User ID: BHP employees = 1SAP employee number starting with 200 Agency contractors = 1SAP worker number starting with 800 Service contractors = enter Cority CON number if you have Cority access, or contractors' surname again NOTE: 1SAP numbers must be used for employees and agency contractors in order to import results into Cority. c. Exposure level in dBA field only – use the Exposure Risk Profile SEG's Noise95% UCL, Appendix 5 shows you how to find this. d. Department – enter employer name, e.g., BHP or Schlumberger etc. 	VeriPRO From Howard Leight® A personal apprach to Hearing Conservation PRO Users Add User PRO Users Add User Pret Name Mdde Name Pret Name Mdde Name Pret Name Mdde Name Department Department

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Step	Instructions	VeriPRO Screenshot
	e. Location – enter work location, e.g. GOM Shenzi.f. Click "OK" and go back to Step 2.	
	If the department/location drop down box does not have the item you need, select the new department/location button and type it in.	

Appendix 3 – Exporting Results to Excel

Step	Instructions	VeriPRO Screenshot
1	a. Clinic on Tools icon b. Select "Export Data"	From Howard Leight® A personal approach to Hearing Conservation
		Step 1 - Select Name Search for a user James Bond Clonkort COM007 Clark Kent COM007 Dig Com007 Clark Kent Com001 Manage Entries Upload Company Logo Quick Reference Guide Charge Administrator Password Claibration Check Deport Data About this version Fit Training
2	 a. Enter the date range of testing (e.g. the campaign start date and end date) b. Check box for export to Excel CSV file. c. Click on "Export" 	Construction From Howard Leight® Apersonal approach to Hearing Conservation Image: Conservation

Step	Instructions	VeriPRO Screenshot	
3	a. Name the file and save it as a csv filex	Save As Sa	9
		Provintes Documents library Amange by Folder Includes: 2 locations Name Date modified Type Size Includes: 2 locations Name Date modified Type Size Includes: 2 locations Name Date modified Type Size Includes: 2 locations Size Size Size Size Includes: 2 locations Date modified Type Size Includes: 2 locations Distromodified Type Size Includes: 2 locations Distromodified Type Size Includes: 2 location Distromodified Type Size Includes: 2 location Distribution quark Distribution quark Distribution quark Includes: Distribution Distribution quark Distribution quark Distribution quark In	
		File name: VerPRO Save as type: Excel CSV (*.exv) A Hude Folders Save: Cancel	•

Appendix 4 – Uploading Results into Cority

Step	Instructions	Screenshot
1	User Id on the VeriPRO CSV file must match the worker # in Cority. To check go to Cority: a. Go to the Demographics module b. Search for the worker c. Confirm their Cority worker # matches the User Id in the VeriPRO CSV file. NOTE: If the worker does not exist in Cority you will need to create the worker's profile in Demographics if you want to import their records. Repeat the above for all workers listed in the VeriPRO CSV file.	VeriPRO CSV
2	 Earplug name on VeriPRO CSV file must match the earplug equipment code in Cority. To check: a. Go to the Industrial Hygiene/Equipment module. b. Select the "Hearing Protection Devices – Ear Plugs" view. c. Look for the earplug equipment code and compare to VeriPRO CSV file. d. If they are not the same, change the VeriPRO CSV file earplug name to match the equipment code. In the example given, HPD Classic rather than 3M Classic. NOTE: If the ear plug is not listed – you need to create it. Things to remember: Make sure you are using the Industrial Hygiene Equipment (PPE) layout. Make sure the equipment code starts with "HPD" Fill in the mandatory fields and Noise Reduction Rating. Repeat the above for all earplugs listed in the VeriPRO CSV file. 	

Step	Instructions	Screenshot	
3	 Import spreadsheet into Cority a. Go to Industrial Hygiene suite – Hearing Fit module b. Actions – Import Results c. Select Standard = VeriPRO d. Select File = Browse for the VeriPRO CSV file you saved. e. Select Import – you will get a Cority message asking if you want to upload the records to Cority – select Yes. There will be a second Cority message. Confirm all the records were added, and none were rejected. NOTE: If records were rejected go back and repeat steps 1 and 2. 	Industrial Hygiene Survey Monitoring Lab Requisition Noise Monitoring SEG Management Equipment Findings & Actions AIHA Spreadsheet Documents Letters Questionnaire Inbox Questionnaire Respirator Fit 2 Idaring Fit Stroke Noise Monitoring See Grangement Equipment Findings & Actions AIHA Spreadsheet Documents Letters Questionnaire Respirator Fit Stor Management Equipment Findings & Actions AIHA Spreadsheet Documents Letters Questionnaire Inbox Questionnaire Inb	Vorker Organization New Delete New Delete Now Delete Delete Delete Delete Delete Delete Delete Delete Delete

Step Instructions	Screenshot		
 4 Entering Overall Pass/Fail result for each worker. Open the worker's test record (click on the worker's name) a. Click on the "Fit Tests" tab b. Click on the hearing protector c. Check "Protected Exposure" field d. If Protected Exposure ≤ 82 select "Pass" for Oven Pass Fail" If Protected Exposure >82 select "Fail" and trigger a new hearing protection fit test for the worker. e. Click on Save and close. 	All Survey Monitoring Lab Requisition Noise Monitoring SEG Management Equipment Findings & Actions AlHA Spreadsheet Documents Letters Questionnaire Inbox Questionnaire Respirator Fit Hearing Fit COCILUY Noise Monitoring Servey Monitoring Survey Monitoring Monitoring Survey Monitoring Monit	Wy Favorite: Occupational Health Bond, James Hearing Fit Summary Hearing Fit Summary Fit Tests New C Delete Audiometric Fit Tests New C Delete Attack Hearing Protector Hearing Fit Summary Fit Tests New C Delete Attack Hearing Protector Hearing Fit Test Hearing Protector Hearing Fit Test Hearing Fit Test Date Are Classic ear plug Go To Top Hearing Fit Test Dotter Hege Do	erce Lawors VeriPPO Hearing Fit Te.

Appendix 5 – Exposure Level in dBA

To locate the worker's Exposure Risk Profile, use this link <u>Exposure Risk Profile</u> – navigate through the folder structure to find the right BET. For example – for Shenzi click on Conventional \rightarrow Shenzi \rightarrow select most recent Exposure Risk Profile.

To work out the 95% UCL (See screenshot below for visual steps).

- 1. Click on the Quantitative Assessment tab at the bottom of the spreadsheet.
- 2. Look for the worker's SEG (e.g., Operations Techn & CRO).
- 3. Go to noise exposure.
- 4. Look across to the 95% UCL column and take the number in dBA.

A	В	C	D	E	F	G	H		J	K	L	M
1												
2	Quantitative Assessment				Final Classification Criteria: 95% UCL (eria: 95% UCL or	L or Lands 95% UCL			
3	3 (Exposure Profiles)			Possibl	ly exceeding the OFI > to the			> to the (the OFI			
4	Categold to the following granded			Dessibly of				FOX of the OF				
4	Extend the tables below as needed. Possibly			Possibly e	ceeding 50% of the OEL 2 50% of the OE			50% of the OEL	& < the OEL	-		
0	Possib			Possibly ex	xceeding 10% of the OEL ≥ 10% of the OEL &			% of the OEL & <	50% of the C)EL		
5				Unlikely to	o exceed 10% of the OEL < 10% of th			< 10% of the	e OEL			
<u>/</u>	011-01-01	ch										
8	Site/Asset	Snenzi										
	SEG Name	SEG	Samples	Date	Analysis		Shift	Normal	Mean	SD	95% UCL	Final Classification
9	M	Population	collected	Monitoring	Method	OEL	Adjusted	Distribution				
	ĻĻ	(N)		Completed			OEL	Lognormal	MVUE	GSD	Land's 95% UCL	
10	V							Distribution				
	OIM & Supervision, Planner											
	(Production, Maintenance)											
11	SHE-01											
12	Noise	12	24	11/21/2016	Dosimeter	85 dBA	85dBA	Normal	76.2	2.7	86.2	Possibly exceeding the OEL
13	Benzene	12	12	11/22/2016	Badge	0.5	0.475	Normal	0.043	2.1	0.098	Possibly exceeding 10% of the OEL
14	Toluene	12	12	11/23/2016	Badge	50	33.5	Normal	0.131	2.6	0.343	Unlikely to exceed 10% of the OEL
15	Ethylbenzene	12	12	11/21/2016	Badge	100	95	Normal	0.098	1.8	0.185	Unlikely to exceed 10% of the OEL
16	Xylene	12	12	11/25/2016	Badge	50	33.5	Normal	0.337	2.04	0.733	Unlikely to exceed 10% of the OEL
17	Naphthalene	12	1	9/20/2014	Badge	10	10	Normal			0.27	Unlikely to exceed 10% of the OEL
18	Total Hydrocarbons	12	12	11/21/2016	Badge	20	13.4	Normal	1.18	1.9	2.3	Possibly exceeding 10% of the OEL
2	Operations Techn & CRO											
1.	SHE-03											
3	Noise	23	29	11/21/2016	Dosimeter	85 dBA	85dBA	Normal	83.5	2. 4	88.5	Possibly exceeding the OEL
21	Benzene	23	37	11/21/2016	Badge	0.5	0.475	Normal	0.035	1.9	0.055	Unlikely to exceed 10% of the OEL
22	Toluene	23	37	11/21/2016	Badge	50	33.5	Normal	0.08	1.7	0.11	Unlikely to exceed 10% of the OEL
23	Ethylbenzene	23	37	11/21/2016	Badge	100	95	Normal	0.08	1.7	0.1	Unlikely to exceed 10% of the OEL
24	Xylene	23	37	11/21/2016	Badge	50	33.5	Normal	0.25	1.7	0.36	Unlikely to exceed 10% of the OEL
25	Naphthalene	23	14	9/20/2014	Badge	10	10	Normal	0.266	1.21	0.299	Unlikely to exceed 10% of the OEL
26	Total Hydrocarbons	23	37	11/21/2016	Badge	20	13.4	Normal	0.796	1.78	1.12	Unlikely to exceed 10% of the OEL
27	Methanol	23	6	9/21/2014	NIOSH 2000	200	133	Normal	0.055	1.1	0.062	Unlikely to exceed 10% of the OEL
28	DPM	23	12	11/21/2016	NIOSH 5040	30	28	Normal	1.3	1.47	1.8	Unlikely to exceed 10% of the OEL
	I&A Technician											
29	SHE-06											
30	Noise	5	18	11/21/2016	Dosimeter	85 dBA	85dBA	Normal	83.3	1.5	85.8	Possibly exceeding the OEL
31	Benzene	5	16	11/21/2016	Badge	0.5	0.475	Normal	0.04	1.8	0.07	Possibly exceeding 10% of the OEL
32	Toluene	5	16	11/21/2016	Badge	50	33.5	Normal	0.09	1.7	0.143	Unlikely to exceed 10% of the OEL
33	Ethylbenzene	5	16	11/21/2016	Badge	100	95	Normal	0.09	1.7	0.142	Unlikely to exceed 10% of the OEL
34	Xylene	5	16	11/21/2016	Badge	50	33.5	Normal	0.3	1.86	0.5	Unlikely to exceed 10% of the OEL
35	Naphthalene	5	5	9/20/2014	Badge	10	10	Normal	0.27	1.19	0.28	Unlikely to exceed 10% of the OEL
36	Total Hydrocarbons	5	16	11/21/2016	Badge	20	13.4	Normal	0.79	1.76	1.27	Unlikely to exceed 10% of the OEL
37	Methanol	5	8	9/21/2014	NIOSH 2000	200	133	Normal	0.12	1.3	0.2	Unlikely to exceed 10% of the OEL
38	DPM	5	4	9/22/2014	NIOSH 5040	30	28	Normal	1	1.1	1.3	Unlikely to exceed 10% of the OEL
	Mechanic / tech							1				
	Define SEGs Haz	ardous Chem A	gents C	haracterize Expo	osures Mo	nitoring Strate	gy Moni	toring Not.	Quantita	ative Asse	sment Exposi	ure Ranking Additive (+) :

NOTE: If you are unsure about which SEG the worker fits into, go to the Define SEGs tab and the job titles are listed for each SEG (see screenshot below).

5	Site/Asset Shenzi									
	SEG Name	Description of Primary Tasks	Shift	Shift	Work Period	HR Job Titles				
			Rotation	Length		E				
6										
	OIM & Supervision, Planner	Officer in charge, office work and inspections of platform, contorl	1st	12	14 days on; 14 days	OIM (2), ops super (2), Maintenance super (2),				
	(Production, Maintenance)	room ops			off	Assoicate planning specialist (2), field materials tech (1),				
_	SHE-01					Sr. materials tech (1), Assoicated Process engineer (2)				
7										
2	Operations Techn & CRO	Daily rounds, shake outs, MMS pilot level testing, valve replacement,	1st/2nd	12	14 days on; 14 d	Field ops tech (11), Sr. Ops Tech (9), Ops tech (3)				
6	SHE-03	E-03 isolations			off 💽					
	I&A Technician	hnician control system, PLC, meter calibrations, IMMS server checks,			14 days on; 14 days	Field I&A tech (2), Sr. I&A tech (3)				
9	SHE-06	trouble shooting			off					
	Mechanic / tech	break down, intrusive PMs, change oil & filters, fire water checks,	1st	12	14 days on; 14 days	Sr mech tech (2), Field Mechanical Tech (3)				
10	SHE-07	lube oil top offs.			off					
	Electrical Tech	electrical maintenance, PMs, HVAC, UPS battery charging system	1st	12	14 days on; 14 days	Electrical tech (1), Sr. Electrical tech (1), Field electrical				
11	SHE-08	checks			off	tech (2)				
	Medic & HSE Medical work, training, helideck ops			12	14 days on; 14 days	HSE specialist (2), admin HSEC reporting (medic) (2)				
	Define SEGs	Hazardous Chem Agents Characterize Exposures Monitori	ng Strateg	gy M	onitoring Notes Qu	antitative Assessment Exposure Ranking Additive				