



Lanemark

Service Report Formats

CALIDUS eSERV

4th October 2013 - 0.2

Reference: FS 312147 309371-15

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1 Appendix A: TEST PLAN

Test Script / Scenario Reference	<i>Other Product and Search</i>	Call Number(s): 311801 309371-8
Test Script / Scenario Description	<i>To test new Other Product and Product Search functionality works as expected.</i>	PASS / ISSUES / FAIL
Menu Access	<i>Services</i>	
Pre-requisites		Tested By:
Test Objective	<i>To test that: the system can be configured as required; Product Search functionality works as expected on the PDA; Other product functionality works as expected on the PDA; Other products, when entered, are displayed correctly within the system.</i>	Date:

Step	Action	Result	Remarks	P/F
1	Admin			
1.01	Check Site and Job Group screens, that the Lanemark option can be chosen against 'Products', saved and edited.	The value can be selected, EPL_SERVICE_PRODUCTS is saved correctly and is editable.		

Step	Action	Result	Remarks	P/F
2	PDA Services			
	<i>Ensure that the EPOD_JOB_GROUP flag EPL_SERVICE_PRODUCTS is set to "L". Create a service job and assign to a PDA user.</i>			
2.01	Enter multiple models against multiple products, ensuring that some products are left with no model. Log on, start a Service Job and click on the Products tab. Click on Other , then Search .	All products are listed for the user's vehicle.		
2.02	Change the model DDL to one of the models. Click Search .	Only products matching the model selected or without a model on the user's vehicle should be shown.		
2.03	Click Back .	The unit should return to the Products tab - nothing should be entered on the Products table.		
2.04	Re-enter the Other pop-up and re-enter the same criteria as before. Click Search then Use .	The unit should return to the Products tab. The first product in the list should be entered on the Products		



		table.		
2.05	Re-enter the Other pop-up and re-enter the same Model criteria as before. Enter some search criteria that matches none of the available products on the user's vehicle (but matches a general service product) and click Search	None should be displayed. A validation error should be displayed if the user attempts to use the product.		
2.06	Choose a different vehicle's stock and click Search .	All products matching the model selected or without a model should be shown.		
2.07	Change the product quantity to 0 and click Use .	A validation error should be displayed.		
2.08	Change the quantity to a non-zero, non-1 value and Click Use	A pop-up should show requiring the user to confirm using the other vehicle's stock.		
2.09	Click "No"	The user should be returned to the pop-up.		
2.10	Click Use then "Yes"	The unit should return to the Products tab. The first product in the result list should be entered on the Products table, marked as from the different vehicle. The quantity should be as set in the pop-up screen.		
2.11	Re-enter the Other pop-up and re-enter the same criteria as before. Click Search then Use .	The unit should return to the Products tab. The original product in the list should have the quantity added to the entry on the Products table.		
2.12	Re-enter the Other pop-up. Check 'Add Other Stock'.	All Search criteria should be disabled for use. Description should be enabled.		
2.13	Click Use	A validation error should be displayed, as no description has been entered.		
2.14	Enter a description then click Use .	The unit should return to the Products tab. A new entry should be entered on the Products table, with a Product code of "NEW", with the entered description.		
2.15	Re-enter the Other pop-up. Check 'Add Other Stock'. Enter a different description then click Use .	The unit should return to the Products tab. A new entry should be entered on the Products table, with a Product code of "NEW", with the entered description.		
2.16	Re-enter the Other pop-up. Check 'Add Other Stock'. Enter the same description then click Use .	The unit should return to the Products tab. A new entry should be entered on the Products table, with a Product code of "NEW", with the entered description.		
2.17	Re-enter the Other pop-up. Check 'Add Other Stock'. Enter the same description then click Use .	The unit should return to the Products tab. A new entry should be entered on the Products table, with a Product code of "NEW", with the entered description.		
2.18	Long-press on any "NEW" line in the product grid and select "Remove All"	The entry should be removed from the Products table.		
2.19	Long-press on any "NEW" line in the product grid with a quantity greater than 1 and select "Remove 1".	The quantity should be decreased by 1.		



2.20	Continue to long-press on this line in the product grid, selecting "Remove 1" until the quantity = 0	The entry should be removed from the Products table.		
2.21	Long-press on any "NEW" line in the product grid and select "Add 1"	The quantity should be increased by 1.		
2.22	Repeat the last 4 tests for non-"NEW" lines	As expected		
2.23	Complete the Service	All products should be sent back to the server and saved.		

Step	Action	Result	Remarks	P/F
3	Admin (post)			
3.01	Check the Job in Admin Services and Jobs screens, showing the details.	The job should be completed. The details should show the fields required by the set-up and the data (i.e. the Vehicle and Description columns).		

Step	Action	Result	Remarks	P/F
4	Regression tests			
4.01	Set the value of the EPOD_JOB_GROUP flag EPL_SERVICE_PRODUCTS is set to other values ("A", "N", "Y"). Repeat the tests above to ensure that the system operated as it should under the other configurations.	As required by the other configurations.		



2 Appendix B: Quote & Document References

Cost Details			
Activity	No. of Days	Rate per Day (?)	Cost (? Exc. VAT)
Requirements	0.00	0	?0.00
Change Request Evaluation	0.00	0	?0.00
Functional Specification	1.00	0	?0.00
Technical Specification	0.00	0	?0.00
Development	6.25	0	?0.00
Testing and Release	1.00	0	?0.00
Implementation	0.00	0	?0.00
Project Management	First argument to "number_format" must be a number.	0	?First argument to "number_format" must be a number.
TOTAL	First argument to "number_format" must be a number.		?First argument to "number_format" must be a number.

Estimate excludes training, release to live and go live support.

B.1 References

Ref No	Document Title & ID	Version	Date
1	UG 291094 EPOD Admin User Guide	2.0	4/4/2012
2	UG 291097 EPOD Client User Guide	3.0	23/4/2013
3	REQ 309371 Lanemark eSERV Requirements	0.4	29/08/2013

B.2 Glossary

Term	Definition
EPOD	Electronic Proof of Delivery. The OBS EPOD system is <i>CALIDUS</i> ePOD.
<i>CALIDUS</i> eSERV	The OBS mobile system to complete Service functionality in the field. This is part of the <i>CALIDUS</i> ePOD system.
PDA	The mobile device on which the C-ePOD system will run in the field. This can be a Phone, EDA or industrial PDA, running Android.
DAL	Data Access Layer. A mechanism for accessing data by the system that is removed from the application, allowing for simplified access and providing protection to the data, as only approved DAL methods can be used to modify it.
GPS	Global Positioning System. A mechanism of retrieving accurate positioning information in the form of Latitude and Longitude (Lat-Long) co-ordinates from a device.
GPRS, 3G, HSDPA, Data Service	All terms referring to mobile device network connectivity, and the speed at which the device connects to the internet.

B.3 Authorised By

Julie Taylor OBS Project Manager _____

Jeff Foster Client Representative _____

Alan Thompson Client Representative _____

Info tab, showing the position of the new previous/next buttons (1 and 2)



If the user clicks on the **Next** button, the next service item will be displayed on each of the Service tabs. If there is no next Service record, the first will be displayed instead. The **Previous** button will work in the same way, showing the previous Service record, or the last. A "swipe" event will also be added to the "Service:" label, to perform the same function.

In order to do this, a function must be written to update each of the tabs with the information from a particular service record. So:

- The screen will be changed to hold a current Service record number (vars.IngServiceRecord) that will be set on creating the screen.
- Any labels that need to be updated with data from the Service record on any of the tabs should be assigned variable items in the vars object, rather than just being added directly to any parent view - this is so that the text value can be updated.
- Any changes to the previous Service will be saved.
- The current Service record (IngServiceRecord) will be changed to the appropriate next Service record, depending on which button was pressed, and where in the Services collection the screen currently is.
- The new function will update:
 - ◆ Each label, button, picker, text and check variable item in the screen with the appropriate value from the current Service record (for example, PDAJOB.PDASERVICES[vars.IngServiceRecord].PDASERVICE.EPL_SERVICE_ID).
- This new function will be called at start-up (through an "open" event added to the TabGroup object) - all assignments of value and text properties derived from Service data will be removed from each variable declaration, to ensure that only one part of the code sets these values, to make code support easier.

The validateJob function will be modified to check that all PDA_SERVICE items have had all details entered against them. This should be completed by checking the validation of all the service items when pressing the **Done** button. The validation messages displayed should identify the Service Item with the issues. 💡 **Note:** New field EPL_STATUS of EPOD_SERVICE (specified in SCR 312116, referenced in [Appendix B](#)) may be used to check and store the status if required. In this way, validating a service need be done only once. Also, only non-cancelled Service records need be checked.

If this is not the case, a validation message should be displayed - clearing this message will return the user to the Services process.



3 Appendix A: TEST PLAN

Test Script / Scenario Reference	<i>Multiple Serviceable Items</i>	Call Number(s): 311856 309371-2
Test Script / Scenario Description	<i>To test that multiple Serviceable Items are supported by CALIDUS eSERV</i>	PASS / ISSUES / FAIL
Menu Access	<i>Services</i>	
Pre-requisites	<i>As much as possible (as far as has been developed on other Lanemark changes to the point of testing this one), the Services created and configuration allowed should match closely to the Lanemark requirements.</i>	Tested By:
Test Objective	<i>To test (for single and multiple serviceable items) that: Import adds and amends Service data correctly; Admin screens add, find and amend Service data correctly; the PDA allows navigation and updating of serviceable items and; the system exports Service data correctly.</i>	Date:

Step	Action	Result	Remarks	P/F
1	Import			
1.01	Import a Service job in the new format, with one service record.	The Job should be saved, with the service record associated to the Job ID.		
1.02	Import a Service job in the new format, with more than one (ideally three) service records.	The job should be saved, with all service records associated to the Job ID.		
1.03	Import the single-service job again, but with an additional service item.	The job should be saved, with all service records associated to the Job ID.		
1.04	Import the multiple-service job again, but with one of the original service items removed.	The job should be saved, with all service records associated to the Job ID. The removed Service item should be deleted.		

Step	Action	Result	Remarks	P/F
2	Admin			
2.01	In the Job screen, create a Service job with a single service.	The Job should be saved, with the service record associated to the Job ID.		
2.02	In the Job screen, create a Service job with more than one (ideally three) service records.	The job should be saved, with all service records associated to the Job ID.		
2.03	Find these service records again.	All should appear once only on the grid.		
2.04	Edit a single-service job and add another service			



		The job should be saved, with all service records associated to the Job ID.		
2.05	Edit a multiple-service job, and delete a service	The job should be saved, with all service records associated to the Job ID, except the deleted one.		
2.06	Repeat the above tests on the Configurable Job screen	As expected		
2.07	In the Services screen, find all services.	All services created should be found, with a single line for all serviceable items, not one per job.		
2.08	Search for a specific Serviceable Item	The service should be found, with a single line for all serviceable items, not one per job.		
2.09	Search for a serviceable item (Service ID) that matches multiple serviceable items across multiple jobs.	All services created should be found, with a single line for all serviceable items, not one per job.		
2.10	Enter a partial Serial Number that matches multiple serviceable items across multiple jobs.	All services created should be found, with a single line for all serviceable items, not one per job.		

Step	Action	Result	Remarks	P/F
3	PDA			
3.01	Start a single-service job on the device and complete.	This should operate as before, to the limit of already-coded changes for Lanemark at the point of testing.		
3.02	Start a multiple-service job on the device (at least 3 serviceable items).	The Job Details screen will show the Job Code as the Service ID.		
3.03	Change to the Info screen.	The details of the first serviceable item are displayed; Previous and Next buttons are present; a sub-title of "1 of 3" is displayed.		
3.04	Complete details of the first serviceable item. Press Done.	A validation error should be displayed, showing that not all details have been entered against all Serviceable Items.		
3.05	Move to the Info tab and press Next.	The details of the second serviceable item are displayed; Previous and Next buttons are present; a sub-title of "2 of 3" is displayed. No other details have been entered against this item.		
3.06	Complete the details of all remaining items (markedly different on all items), finishing on the third.	The details of the third serviceable item are displayed; Previous and Next buttons are present; a sub-title of "3 of 3" is displayed. All details entered against the third item are displayed.		
3.07	Press Next.			



		The details of the first serviceable item are displayed; Previous and Next buttons are present; a sub-title of "1 of 3" is displayed. All details entered against the first item are displayed.		
3.08	Press Done	The service should complete (move to signature).		
3.09	Complete the service job	The results of all services should be returned to the system.		

Step	Action	Result	Remarks	P/F
4	Post-PDA (Admin/Server)			
	<i>Ensure that single- and multiple-item jobs have been completed.</i>			
4.01	Check all items on all jobs updated.	All records are updated correctly		
4.02	Check the Service Details screen for a Single-item Service Job	The screen has changed layout correctly - only one service item's details are displayed		
4.03	Check the Service Details screen for a multiple-item Service Job	The screen has changed layout correctly - all service item's details are displayed on a scrolling screen.		

Step	Action	Result	Remarks	P/F
5	Export			
5.01	Export a single-item Service Job	The job is exported correctly and the resulting export XML matches the XSD.		
5.02	Export a multiple-item Service Job	The job is exported correctly and the resulting export XML matches the XSD.		



4 Appendix B: Quote & Document References

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Change Request Evaluation	0.00	0	?0.00
Functional Specification	1.25	0	?0.00
Technical Specification	0.00	0	?0.00
Development	10.50	0	?0.00
Testing and Release	2.00	0	?0.00
Implementation	0.00	0	?0.00
Project Management	First argument to "number_format" must be a number.	0	?First argument to "number_format" must be a number.
TOTAL	First argument to "number_format" must be a number.		?First argument to "number_format" must be a number.

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3	REQ 309371 Lanemark eSERV Requirements	0.4	29/08/2013
4	FS 312116 Service Cancellation Changes	0.1	19/09/2013

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B.3 Authorised By

Julie Taylor OBS Project Manager _____

Jeff Foster Client Representative _____

Alan Thompson Client Representative _____

—FS 311636 UDF Modifications, 11/9/2013 11:32:53

There will be some slight modifications to this here, to allow for Multiple Serviceable Items processing, along with the changes required for this functionality.



The Pre-work button will be labelled with the NAME attribute of the FORM in the XML, plus a status in parentheses, based on the Confirm attribute of the UDF created, one of:

- Blank - "Incomplete"
- C - The label of the **Complete** button
- X - the label of the **Cancel** button

 **Note:** The **Ignore** button alone will not change the status, as this is the equivalent to the Android Back button.

These Pre-work Checks can be completed for all Serviceable items, or just for the one in progress, so a user may choose to complete one, move to the next serviceable item, complete those checks, move on, etc, until all are complete. Therefore, when displaying this button for the first time, the screen must check the value of the CONFIRM attribute of the FORM tag from the UDF XML stored in EPL_UDF_PREWORK.

When the screen has been exited with a **Cancel** or **Confirm** button press, the Confirm parameter will have been stored against the object and the items validated. This parameter must also be stored as an attribute against the FORM tag (CONFIRM="X|I|C") on the returned XML. This will also change the label of the Pre-work button, to reflect the new status.

When Cancelling (using an X-type button), the XML must still be built and saved, but without the users' answers (i.e. as the passed-in configuration). As before, the CONFIRM attribute must be added and the Pre-work label changed.

 **Note:** The XML returned to the FORM should be placed in EPL_UDF_PREWORK. This should be saved if the user chooses to exit the service or if the user changes Serviceable Items, through the functionality designed for Multiple Serviceable Items.

The Android BACK key may be used to back out of the Pre-work screen - in this case, a confirmation back to the user be made (standard, not configurable) informing them that all entered data will be lost. If not confirmed, the user will be returned to the Pre-work screen. If confirmed, the user will be returned to the Info tab, nothing will be validated or saved, including the Confirm attribute, which should still be set to blank.

If the Pre-work status has been set to 'C' or 'X', the user should NOT be allowed back in to change the status - the checks have been entered and confirmed by the user and may not be changed.

If the FORM tag REQUIRED attribute has been set on the configuration XML to 'Y', the Pre-work checks MUST be complete before any work (other than Information-gathering) begins - the screen should not allow moving onto any tab other than Job Details and Information (i.e. any tab index greater than 1). If the user attempts to do this, an error should be displayed and the user should be returned to the Info or Job Details tab.



5 Appendix A: Risk Assessment Form

LANEMARK

HEALTH & SAFETY PROCEDURE

REF: HS10005

By: A Thompson

Date: 19/07/12

Issue:

Page of:

TITLE: ENGINEERS SITE RISK ASSESSMENT

SITE:

SERVICE JOB: SJ.....

DATE:.....

Person on site responsible for your safety:.....

Brief Description of work to be done:.....

Identify the hazards associated with the work to be undertaken (mark those applicable)

Existing live pipework, services & plant	☐	Use of portable electric tools	☐	Explosion	☐
Adverse weather conditions	☐	Ventilation	☐	Lighting	☐
Chemicals/ Substances present in existing system	☐	Contact with hot & cold surfaces	☐	Noise	☐
Transport of items to and from site	☐	Fire (including static electricity)	☐	Electricity	☐
Tripping/ Slipping	☐	Storage/ Stacking	☐	Hand Tools	☐
Fall from height (platform)	☐	Fall from height (ladder)	☐	Radiation Sources	☐
Transport of vehicles around site	☐	Solitary Working	☐	Confined Spaces	☐
Mechanical Lifting & Moving	☐	Manual Handling of Materials	☐	Fall of materials	☐
Use of Substance hazardous to health	☐	Disposal of substances	☐	General Dust/ Debris	☐

Other (Please Specify).....

OVERALL ASSESSMENT OF RISK:

HIGH MED LOW (CIRCLE ONE)

Measures to be taken to Control the risks identified above:.....

If the above controls are adopted, is the risk now considered to be accepted? YES / NO

Engineer Print:

Engineer Sign:

Customer Print:

Customer Sign:

ONLY COMPLETE IF RISK UNACCEPTABLE

Issue	Description	By	Mod'	Date
-------	-------------	----	------	------

UKAS

Quality

ISO 9001

UKAS

Health & Safety

ISO 45001

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Company Registration No. 1991089 VAT No. GB 337 5790 48

Place of Registration England & Wales

Directors: P.A. Galloway, J.S. Huxley, A.L. Thompson

CORGI

Safe



6 Appendix B: Risk Assessment Configuration

```

<FORM NAME="Risk Assessment" REQUIRED="Y">
  <FIELD ID="PERSON">
    <TEXT>Person on site responsible for your safety</TEXT>
    <FORMAT>T</FORMAT>
    <REQUIRED>Y</REQUIRED>
  </FIELD>
  <FIELD ID="DESCRIPTION">
    <TEXT>Brief description of work to be done</TEXT>
    <FORMAT>T</FORMAT>
    <REQUIRED>Y</REQUIRED>
  </FIELD>
  <FIELD ID="HAZARDS">
    <TEXT>Identify hazards associated</TEXT>
    <FORMAT>X</FORMAT>
    <REQUIRED>N</REQUIRED>
    <ITEMS>
      <ITEM>Existing live pipework, services and plant</ITEM>
      <ITEM>Adverse weather conditions</ITEM>
      <ITEM>Chemicals/Substances present in existing System</ITEM>
      <ITEM>Transport of Items to and from site</ITEM>
      <ITEM>Tripping/Slipping</ITEM>
      <ITEM>Fall from height (platform)</ITEM>
      <ITEM>Transport of vehicles around site</ITEM>
      <ITEM>Mechanical lifting and moving</ITEM>
      <ITEM>Use of Substances hazardous to health</ITEM>
      <ITEM>Use of portable electrical tools</ITEM>
      <ITEM>Ventilation</ITEM>
      <ITEM>Contact with hot and cold surfaces</ITEM>
      <ITEM>Fire (including static electricity)</ITEM>
      <ITEM>Storage/Stacking</ITEM>
      <ITEM>Falling from height (ladder)</ITEM>
      <ITEM>Solitary working</ITEM>
      <ITEM>Manual handling of materials</ITEM>
      <ITEM>Disposal of substances</ITEM>
      <ITEM>Explosion</ITEM>
      <ITEM>Lighting</ITEM>
      <ITEM>Noise</ITEM>
      <ITEM>Electricity</ITEM>
      <ITEM>Hand Tools</ITEM>
      <ITEM>Radiation sources</ITEM>
      <ITEM>Confined Spaces</ITEM>
      <ITEM>Fall of materials</ITEM>
      <ITEM>General Dust / Debris</ITEM>
    </ITEMS>
  </FIELD>
  <FIELD ID="HAZARDS_OTHER">
    <TEXT>Others (please specify)</TEXT>
    <FORMAT>T</FORMAT>
    <REQUIRED>N</REQUIRED>
  </FIELD>
  <FIELD ID="RISK_ASSESSMENT">
    <TEXT>Overall Assessment of Risk</TEXT>
    <FORMAT>DDL</FORMAT>
    <REQUIRED>Y</REQUIRED>
    <ITEMS>
      <ITEM DEFAULT="Y">LOW</ITEM>
      <ITEM>MED</ITEM>
      <ITEM>HIGH</ITEM>
    </ITEMS>
  </FIELD>
  <FIELD ID="RISK_CONTROL">
    <TEXT>Risk Control Measures</TEXT>
    <FORMAT>X</FORMAT>
    <REQUIRED>N</REQUIRED>
    <ITEMS>
      <ITEM>Boots</ITEM>
      <ITEM>Hard Hat</ITEM>
      <ITEM>Hi Vis</ITEM>
      <ITEM>Chemical Boots</ITEM>
      <ITEM>Googles</ITEM>
      <ITEM>Glasses</ITEM>
      <ITEM>Gloves</ITEM>
      <ITEM>Chemical Gloves</ITEM>
      <ITEM>Harness</ITEM>
      <ITEM>Lanyard</ITEM>
    </ITEMS>
  </FIELD>

```



```

        <ITEM>Trolley</ITEM>
        <ITEM>Checmical Suit</ITEM>
    </ITEMS>
</FIELD>
<FIELD ID="RISK_CONTROL_OTHER">
    <TEXT>Others (please specify)</TEXT>
    <FORMAT>T</FORMAT>
    <REQUIRED>N</REQUIRED>
</FIELD>
<BUTTON CONFIRM="Are the risks now considered to be accepted?">
    <TYPE>C</TYPE>
    <TEXT>Complete</TEXT>
</BUTTON>
<BUTTON CONFIRM="Please confirm that a Method Statement has been produced.">
    <TYPE>X</TYPE>
    <TEXT>Not Required</TEXT>
</BUTTON>
</FORM>

```



7 Appendix C: TEST PLAN

Test Script / Scenario Reference	Configurable Pre-Work Checks	Call Number(s): 311908 309371-4/5
Test Script / Scenario Description	To test specific Lanemark Pre-work Checks UDF configuration and functionality.	PASS / ISSUES / FAIL
Menu Access	Services	
Pre-requisites	Ensure that the site being used has the UDF configuration as described in the Data section and Appendix B . Ensure there are single- and multiple-item jobs (with at least 3 items) to check.	Tested By:
Test Objective	To test that: Required checks are completed; validation is forced on the checks; validation is forced so that they are entered before any other information; status is displayed correctly and; data is updated correctly.	Date:

Step	Action	Result	Remarks	P/F
1	PDA - Process			
1.01	Start a single-item service job. press onto the Diagnosis tab.	A validation error should be displayed.		
1.02	Check the Pre-work button label	It says "Risk Assessment (Incomplete)"		
1.03	Press the Pre-work button.	The pre-work pop-up is shown. The label says Risk Assessment. All fields required are present in a scrolling form. There are 2 buttons: Complete and Not Required		
1.04	Press the Android Back key	A confirmation dialogue is displayed.		
1.05	Cancel this.	The Pre-work pop-up is displayed again.		
1.06	Press the Android Back button and Confirm the confirmation dialogue.	The Info tab is shown again. The label still says "Incomplete".		
1.07	Re-enter the Pre-work pop-up. press the Complete button.	A validation error should be displayed, as not all required information has been entered.		
1.08	Enter all required information. press the Complete button.	A confirmation dialogue is displayed.		
1.09	Press "No"	The Pre-work pop-up is displayed again.		
1.10	Press the Complete button and press Yes on the confirmation dialogue.	The Info tab is shown again. The label says "Complete".		
1.11	Press the Pre-work button.	A validation error should be displayed, as the Pre-work checks have been completed.		
1.12	Complete this service-job.	All Pre-work check information is saved and can be displayed and reported on.		



1.13	Start a new single-item job. Press the Pre-work button. Press the Not Required button.	A confirmation dialogue is displayed.		
1.14	Cancel this.	The Pre-work pop-up is displayed again.		
1.15	Press the Not Required button and confirm.	The Info tab is shown again. The label says "Not Required".		
1.16	Complete this service-job.	All Pre-work check information is saved and can be displayed and reported on. It is marked as not required.		
1.17	Start a new multiple-item job. On the first item, press the Pre-work button. Enter all required information. Press the Complete button and confirm.	The Info tab is shown again. The label says "Complete".		
1.18	Press the Next button.	The next service item is shown. The Pre-work label says "Incomplete".		
1.19	Press the Next button, then the Pre-work button.	The Pre-work pop-up is displayed again.		
1.20	Press the Not Required button and confirm.	The Info tab is shown again. The label says "Not Required".		
1.21	Press the Prev button.	The previous service item is shown. The Pre-work label says "Complete".		
1.22	Press the Pre-work button.	A validation error should be displayed, as the Pre-work checks have been completed.		
1.23	Press the Next button, then the Pre-work button.	A validation error should be displayed, as the Pre-work checks have been completed.		
1.24	Press the Next button, then the Pre-work button.	The Pre-work pop-up is displayed again.		
1.25	Press the Back key and confirm. Press the Prev button, complete any required information (e.g. model on the info tab or comments on the diagnosis tab). Move to the Diagnosis tab and press Complete .	The service is completed, the next incomplete service is displayed.		



8 Appendix D: Quote & Document References

Cost Details			
Activity	No. of Days	Rate per Day (?)	Cost (? Exc. VAT)
Requirements	0.00	0	?0.00
Change Request Evaluation	0.00	0	?0.00
Functional Specification	0.50	0	?0.00
Technical Specification	0.00	0	?0.00
Development	3.50	0	?0.00
Testing and Release	0.50	0	?0.00
Implementation	0.00	0	?0.00
Project Management	First argument to "number_format" must be a number.	0	?First argument to "number_format" must be a number.
TOTAL	First argument to "number_format" must be a number.		?First argument to "number_format" must be a number.

Estimate excludes training, release to live and go live support.

D.1 References

Ref No	Document Title & ID	Version	Date
1	UG 291094 EPOD Admin User Guide	2.0	4/4/2012
2	UG 291097 EPOD Client User Guide	3.0	23/4/2013
3	REQ 309371 Lanemark eSERV Requirements	0.4	29/08/2013
4	FS 311636 UDF Modifications	0.3	05/09/2013
5	FS 311856 Multiple Serviceable Items	0.1	10/09/2013

D.2 Glossary

Term	Definition
EPOD	Electronic Proof of Delivery. The OBS EPOD system is <i>CALIDUS</i> ePOD.
<i>CALIDUS</i> eSERV	The OBS mobile system to complete Service functionality in the field. This is part of the <i>CALIDUS</i> ePOD system.
PDA	The mobile device on which the C-ePOD system will run in the field. This can be a Phone, EDA or industrial PDA, running Android.
DAL	Data Access Layer. A mechanism for accessing data by the system that is removed from the application, allowing for simplified access and providing protection to the data, as only approved DAL methods can be used to modify it.
GPS	Global Positioning System. A mechanism of retrieving accurate positioning information in the form of Latitude and Longitude (Lat-Long) co-ordinates from a device.
GPRS, 3G, HSDPA, Data Service	All terms referring to mobile device network connectivity, and the speed at which the device connects to the internet.

D.3 Authorised By

Julie Taylor	OBS Project Manager	_____
Jeff Foster	Client Representative	_____
Alan Thompson	Client Representative	_____

—FS 311636 UDF Modifications, 11/9/2013 11:32:53



There will be some slight modifications to this here, to allow for Multiple Serviceable Items processing, along with the changes required for this functionality.

The Post-work button will be labelled with the NAME attribute of the FORM in the XML, plus a status in parentheses, based on the Confirm attribute of the UDF created, one of:

- Blank - "Incomplete"
- C - The label of the **Complete** button
- X - the label of the **Cancel** button

 **Note:** The **Ignore** button alone will not change the status, as this is the equivalent to the Android Back button.

These Post-work Checks can be completed for all Serviceable items, or just for the one in progress, so a user may choose to complete one, move to the next serviceable item, complete those tests, move on, etc, until all are complete. Therefore, when displaying this button for the first time, the screen must check the value of the CONFIRM attribute of the FORM tag from the UDF XML stored in EPL_UDF_POSTWORK.

When the screen has been exited with a **Cancel** or **Confirm** button press, the Confirm parameter will have been stored against the object and the items validated. This parameter must also be stored as an attribute against the FORM tag (CONFIRM="X|I|C") on the returned XML. This will also change the label of the Post-work button, to reflect the new status.

When Cancelling (using an X-type button), the XML must still be built and saved, but without the users' answers (i.e. as the passed-in configuration). As before, the CONFIRM attribute must be added and the Post-work label changed.

 **Note:** The XML returned to the FORM should be placed in EPL_UDF_POSTWORK. This should be saved if the user chooses to exit the service or if the user changes Serviceable Items, through the functionality designed for Multiple Serviceable Items.

The Android BACK key may be used to back out of the Post-work screen - in this case, a confirmation back to the user be made (standard, not configurable) informing them that all entered data will be lost. If not confirmed, the user will be returned to the Post-work screen. If confirmed, the user will be returned to the *Diagnosis* tab, nothing will be validated or saved, including the Confirm attribute, which should still be set to blank.

If the Post-work status has been set to 'C' or 'X', the user should NOT be allowed back in to change the status - the tests have been entered and confirmed by the user and may not be changed.

If the FORM tag REQUIRED attribute has been set on the configuration XML to 'Y', the Post-work checks MUST be complete before completing the service as a whole - the validateService function changed above should check the REQUIRED attribute.

The complexity of the Test Results checks means that certain tests are repeated for different groups (specifically, "Spray", "Bake" and "Economy" tests for DB ranges). Therefore an new tag, GROUP, must be added to the UDF XML structure, allowing for this tag - this has been reflected in an XSD example in [Appendix C](#).

The UDF Object in Style.js must be modified to pick up this tag and include it at the end of the SUBTEXT label, in parentheses, if the tag exists.

If Range (EPL_SERVICE_GROUP) is changed, potentially all UDF values will be replaced with other configurations. If the Range is changed, all entered UDF information against the Serviceable Item should be blanked and the user forced to re-enter it.



9 Appendix A: Service Reports

9.1 Service Report - TX/TRX/MTX

SERVICE / COMMISSIONING REPORT - LANEMARK TX / TRX / MTX RANGES

SHEET1 OF

CUSTOMER ORDER NUMBER

SITE CONTACT NAME

SITE CONTACT TEL NUMBER

BURNER MODEL

LANEMARK SERVICE ITEM NUMBER

APPLICATION

LOCATION ON SITE

REASON FOR SITE VISIT

OFFICE INSTRUCTION

11111/1111

1111

Tray Washer / Micro Brewery / Process Tank

SITE REF OR LOW LEVEL / HIGH LEVEL

COMM/SERVICE/SURVEY/BREAKDOWN/OTHER

SERVICE JOB NUMBER

CUSTOMER NAME

CUSTOMER REFERENCE NUMBER

SITE NAME (IF DIFFERENT TO CUSTOMER)

SITE REFERENCE NUMBER

SITE ADDRESS

REF

TEST RESULTS

1

Differential Air Pressure (Cold)

(HI/LO or Mod Gas Only)

mbar

2

Differential Air Pressure (Hot)

(Gas/Air Mod)

mbar

3

Air Differential Pressure at Low Fire (Cold)

(Gas/Air Mod)

Hz

4

Air Differential Pressure at High Fire (Cold)

(Gas/Air Mod)

Hz

5

Air Differential Pressure at Low Fire (Hot)

(Gas/Air Mod)

Hz

6

Air Differential Pressure at High Fire (Hot)

(Gas/Air Mod)

Hz

7

Air Pressure Switch Setting

(All Systems)

mbar

8

Air Pressure at Test Point

(HI/LO or Mod Gas Only)

mbar

9

Air Pressure Switch Setting at Test Point at Low Fire

(Gas/Air Mod)

Hz

10

Air Pressure Switch Setting at Test Point at High Fire

(Gas/Air Mod)

Hz

11

Ther Gas Pressure

(All Systems)

mbar

12

Gas Pressure at Start

(All Systems)

mbar

13

Gas Pressure at Low Fire

(Comp. Air)

Yes

14

Gas Pressure at High Fire

(Comp. Air)

Yes

15

Low Gas Pressure Switch Setting

(All Systems)

Yes

16

High Gas Pressure Switch Setting

(All Systems)

Yes

17

Flame Signal (High Fire)

(All Systems)

mbar

18

Process Temperature (Recorded During Visit)

(All Systems)

°C

19

Combustion Fan Motor

(All Systems)

rpm

20

Combustion Fan Motor Current at Low Fire

(All Systems)

Amp

21

Combustion Fan Motor Current at High Fire

(All Systems)

Amp

22

Combustion Readings

(All Systems)

%

23

%

24

%

25

Flue Temperature at Low Fire

(All Systems)

°C

26

Flue Temperature at High Fire

(All Systems)

°C

DETAILS OF PARTS / MATERIALS USED DURING VISIT

PART NUMBER

DESCRIPTION

QTY

123456789

Spark Rod

1

ENGINEER VISIT COMMENTS

REVISIT REQUIRED

YES/NO

FOLLOW UP REQUIRED

YES/NO

SITE CONTACT NAME (PRINT)

SITE CONTACT SIGNATURE

SERVICE ENGINEER NAME (PRINT)

SERVICE ENGINEER SIGNATURE

IS BURNER SYSTEM SAFE FOR USE

YES

NO

THE TIMES GIVEN BELOW EXCLUDE TRAVEL TIME

DAY

DATE

START TIME

FINISH TIME

POSITION OF EXHAUST DAMPER

FULLY OPEN

FULLY CLOSED

SET

0

0

0

0



9.1.1 Service Report - DB

SERVICE / COMMISSIONING REPORT - LANEMARK DB RANGE

SHEET 1 OF 1

SERVICE JOB NUMBER
CUSTOMER NAME
CUSTOMER REFERENCE NUMBER
SITE NAME (IF DIFFERENT TO CUSTOMER)
SITE REFERENCE NUMBER
SITE ADDRESS

SJ

CUSTOMER ORDER NUMBER
SITE CONTACT NAME
TEL. NUMBER
MOBILE NUMBER
BURNER MODEL
BURNER SERIAL NUMBER
LANEMARK SERVICE ITEM NUMBER
APPLICATION
LOCATION ON SITE
REASON FOR SITE VISIT

ENGINEER VISIT COMMENTS

DETAILS OF PARTS / MATERIALS USED DURING VISIT

PART NUMBER	DESCRIPTION	QTY
123456789	Sample Item	1

REF TEST RESULTS

	WHL O or WHL Gas Only	WHL O or WHL Gas Only	Straw	Base	Exhaust	REMARKS REQUIRED	YES	NO
1 Air Discharge Pressure			mbars	mbars	mbars	FOLLOW UP REQUIRED	YES	NO
2 Combustion Chamber Pressure			mbars	mbars	mbars			
3 Air Pressure Switch Setting			mbars	mbars	mbars	SITE CONTACT NAME (PRINT)		
4 Air Pressure Switch Setting at Test Point			mbars	mbars	mbars			
5 Inlet Gas Pressure			mbars	mbars	mbars			
6 Gas Pressure at Low Fire			mbars	mbars	mbars			
7 Gas Pressure at High Fire			mbars	mbars	mbars			
8 Gas Pressure at Start			mbars	mbars	mbars			
9 Low Gas Pressure Switch Setting			mbars	mbars	mbars			
10 High Gas Pressure Switch Setting			mbars	mbars	mbars			
11 Flame Signal (High Fire)			mbars	mbars	mbars			
12 Flame Signal (High Fire)			mbars	mbars	mbars			
13 Combustion Fan Motor Current at Low Fire			amps	amps	amps			
14 Combustion Fan Motor Current at High Fire			amps	amps	amps			
15 Combustion Fan Motor Current at High Fire			amps	amps	amps			
16 Combustion Headings			amps	amps	amps			
17 Combustion Headings			amps	amps	amps			
18 Combustion Headings			amps	amps	amps			
19 Combustion Headings			amps	amps	amps			

ALL TIMES PROVIDED ABOVE EXCLUDE TRAVEL TIME

IS BURNER SYSTEM SAFE FOR USE

YES

NO



Ready for **What's Next, Now™**

shut / finish.
136 (former shut finish).

10 Appendix B: Test Results Configurations

10.1 Range TX/TRX/MTX

```

<FORM NAME="Test Results" REQUIRED="Y">
  <FIELD ID="1">
    <TEXT>Differential Air Pressure (Cold)</TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="2">
    <TEXT>Differential Air Pressure (Hot)</TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="3">
    <TEXT>Air Differential Pressure at Low Fire (Cold)</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="4" LINK="3">
    <TEXT>Air Differential Pressure at Low Fire (Cold)</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="5">
    <TEXT>Air Differential Pressure at High Fire (Cold)</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="6" LINK="5">
    <TEXT>Air Differential Pressure at High Fire (Cold)</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="7">
    <TEXT>Air Differential Pressure at Low Fire (Hot)</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="8" LINK="7">
    <TEXT>Air Differential Pressure at Low Fire (Hot)</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="9">
    <TEXT>Air Differential Pressure at High Fire (Hot)</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="10" LINK="9">
    <TEXT>Air Differential Pressure at High Fire (Hot)</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="11">

```



```

    <TEXT>Air Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="12">
    <TEXT>Air Pressure at Test Point</TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
</FIELD>
<FIELD ID="13">
    <TEXT>Air Pressure Switch Setting at Test Point at Low Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
</FIELD>
<FIELD ID="14" LINK="13">
    <TEXT>Air Pressure Switch Setting at Test Point at Low Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
</FIELD>
<FIELD ID="15">
    <TEXT>Air Pressure Switch Setting at Test Point at High Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
</FIELD>
<FIELD ID="16" LINK="15">
    <TEXT>Air Pressure Switch Setting at Test Point at High Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
</FIELD>
<FIELD ID="17">
    <TEXT>Inlet Gas Pressure</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="18">
    <TEXT>Gas Pressure at Start</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="19">
    <TEXT>Gas Pressure at Low Fire</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="20">
    <TEXT>Gas Pressure at High Fire</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="21">
    <TEXT>Low Gas Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="22">
    <TEXT>High Gas Pressure Switch Setting</TEXT>

```



```

        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="23">
        <TEXT>Flame Signal (High Fire)</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>DC uA</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="24">
        <TEXT>Process Temperature (Recorded During Visit)</TEXT>
        <SUBTEXT>(All Systems) o C</SUBTEXT>
        <POST>Min</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="25" LINK="24">
        <TEXT>Process Temperature (Recorded During Visit)</TEXT>
        <SUBTEXT>(All Systems) o C</SUBTEXT>
        <POST>Max</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="26">
        <TEXT>Combustion Fan Motor</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <FORMAT>DDL</FORMAT>
        <SKIPABLE>N</SKIPABLE>
        <ITEMS>
            <ITEM CODE="1ph" DEFAULT="Y">1ph</ITEM>
            <ITEM CODE="3ph">3ph</ITEM>
        </ITEMS>
    </FIELD>
    <FIELD ID="27">
        <TEXT>Combustion Fan Motor Current at Low Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Hz</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="28" LINK="27">
        <TEXT>Combustion Fan Motor Current at Low Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Amp</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="29">
        <TEXT>Combustion Fan Motor Current at High Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Hz</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="30" LINK="29">
        <TEXT>Combustion Fan Motor Current at High Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Amp</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="31">
        <TEXT>Combustion Readings - O2</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>%</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="32">
        <TEXT>Combustion Readings - CO2</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>%</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>

```



```

<FIELD ID="33">
  <TEXT>Combustion Readings - CO</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <POST>ppm</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="34">
  <TEXT>Flue Temperature at Low Fire</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <POST>0 C</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="35">
  <TEXT>Flue Temperature at High Fire</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <POST>0 C</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<BUTTON CONFIRM="Confirm all Test Results are completed">
  <TYPE>C</TYPE>
  <TEXT>Complete</TEXT>
</BUTTON>
</FORM>

```



10.1.1 Range DB

```

<FORM NAME="Test Results" REQUIRED="Y">
  <FIELD ID="1">
    <TEXT>Air Differential Pressure </TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="2" LINK="1">
    <TEXT>Air Differential Pressure </TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="3" LINK="1">
    <TEXT>Air Differential Pressure </TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="4">
    <TEXT>Combustion Chamber Pressure </TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="5" LINK="4">
    <TEXT>Combustion Chamber Pressure </TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="6" LINK="4">
    <TEXT>Combustion Chamber Pressure </TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="7">
    <TEXT>Air Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
  </FIELD>
  <FIELD ID="8" LINK="7">
    <TEXT>Air Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
  </FIELD>
  <FIELD ID="9" LINK="7">
    <TEXT>Air Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
  </FIELD>
  <FIELD ID="10">
    <TEXT>Air Pressure Switch Setting at Test Point</TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>

```



```

    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
</FIELD>
<FIELD ID="11" LINK="10">
    <TEXT>Air Pressure Switch Setting at Test Point</TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
</FIELD>
<FIELD ID="12" LINK="10">
    <TEXT>Air Pressure Switch Setting at Test Point</TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
</FIELD>
<FIELD ID="13">
    <TEXT>Inlet Gas Pressure</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="14" LINK="13">
    <TEXT>Inlet Gas Pressure</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="15" LINK="13">
    <TEXT>Inlet Gas Pressure</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="16">
    <TEXT>Gas Pressure at Start</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="17" LINK="16">
    <TEXT>Gas Pressure at Start</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="18" LINK="16">
    <TEXT>Gas Pressure at Start</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="19">
    <TEXT>Gas Pressure at Low Fire</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="20" LINK="19">

```



```

    <TEXT>Gas Pressure at Low Fire</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="21" LINK="19">
    <TEXT>Gas Pressure at Low Fire</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="22">
    <TEXT>Gas Pressure at High Fire</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="23" LINK="22">
    <TEXT>Gas Pressure at High Fire</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="24" LINK="22">
    <TEXT>Gas Pressure at High Fire</TEXT>
    <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="25">
    <TEXT>Low Gas Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="26" LINK="25">
    <TEXT>Low Gas Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="27" LINK="25">
    <TEXT>Low Gas Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Economy</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="28">
    <TEXT>High Gas Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Spray</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="29" LINK="28">
    <TEXT>High Gas Pressure Switch Setting</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <GROUP>Bake</GROUP>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>

```



```

</FIELD>
<FIELD ID="30" LINK="28">
  <TEXT>High Gas Pressure Switch Setting</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <GROUP>Economy</GROUP>
  <POST>mbar</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="31">
  <TEXT>Flame Signal (High Fire)</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <GROUP>Spray</GROUP>
  <POST>DCµA</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="32" LINK="31">
  <TEXT>Flame Signal (High Fire)</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <GROUP>Bake</GROUP>
  <POST>DCµA</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="33" LINK="31">
  <TEXT>Flame Signal (High Fire)</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <GROUP>Economy</GROUP>
  <POST>DCµA</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="34">
  <TEXT>Process Temperature (Recorded During Visit)</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <GROUP>Spray</GROUP>
  <POST>°C</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="35" LINK="34">
  <TEXT>Process Temperature (Recorded During Visit)</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <GROUP>Bake</GROUP>
  <POST>°C</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="36" LINK="34">
  <TEXT>Process Temperature (Recorded During Visit)</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <GROUP>Economy</GROUP>
  <POST>°C</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="37">
  <TEXT>Combustion Fan Motor</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <FORMAT>DDL</FORMAT>
  <SKIPABLE>N</SKIPABLE>
  <ITEMS>
    <ITEM code="1ph" default="Y">1ph</ITEM>
    <ITEM code="3ph">3ph</ITEM>
  </ITEMS>
</FIELD>
<FIELD ID="38">
  <TEXT>Combustion Fan Motor Current at Low Fire</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <POST>Hz</POST>
  <FORMAT>N</FORMAT>
  <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="39" LINK="38">
  <TEXT>Combustion Fan Motor Current at Low Fire</TEXT>
  <SUBTEXT>(All Systems)</SUBTEXT>
  <POST>Amp</POST>

```



```

        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="40">
        <TEXT>Combustion Fan Motor Current at High Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Hz</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="41" LINK="40">
        <TEXT>Combustion Fan Motor Current at High Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Amp</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="42">
        <TEXT>Combustion Readings - O2</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>%</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="43">
        <TEXT>Combustion Readings - CO2</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>%</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="44">
        <TEXT>Combustion Readings - CO</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>ppm</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <BUTTON CONFIRM="Confirm all Test Results are completed">
        <TYPE>C</TYPE>
        <TEXT>Complete</TEXT>
    </BUTTON>
</FORM>

```



10.2 Range FD/FDB

```

<FORM NAME="Test Results" REQUIRED="Y">
  <FIELD ID="1">
    <TEXT>Air Differential Pressure</TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="2">
    <TEXT>Air Differential Pressure at Low Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="3" LINK="2">
    <TEXT>Air Differential Pressure at Low Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>mbar</POST>
    <SKIPABLE>Y</SKIPABLE>
    <FORMAT>N</FORMAT>
  </FIELD>
  <FIELD ID="4">
    <TEXT>Air Differential Pressure at High Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <SKIPABLE>Y</SKIPABLE>
    <FORMAT>N</FORMAT>
  </FIELD>
  <FIELD ID="5" LINK="4">
    <TEXT>Air Differential Pressure at High Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <SKIPABLE>Y</SKIPABLE>
    <POST>mbar</POST>
    <SKIPABLE>Y</SKIPABLE>
    <FORMAT>N</FORMAT>
  </FIELD>
  <FIELD ID="6">
    <TEXT>Combustion Chamber Pressure</TEXT>
    <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
    <POST>mbar</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="7">
    <TEXT>Combustion Chamber Pressure at Low Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>Y</SKIPABLE>
  </FIELD>
  <FIELD ID="8" LINK="7">
    <TEXT>Combustion Chamber Pressure at Low Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>mbar</POST>
    <SKIPABLE>Y</SKIPABLE>
    <FORMAT>N</FORMAT>
  </FIELD>
  <FIELD ID="9">
    <TEXT>Combustion Chamber Pressure at High Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <POST>Hz</POST>
    <SKIPABLE>Y</SKIPABLE>
    <FORMAT>N</FORMAT>
  </FIELD>
  <FIELD ID="10" LINK="9">
    <TEXT>Combustion Chamber Pressure at High Fire</TEXT>
    <SUBTEXT>(Gas Air Mod)</SUBTEXT>
    <SKIPABLE>Y</SKIPABLE>
    <POST>mbar</POST>
    <SKIPABLE>Y</SKIPABLE>
    <FORMAT>N</FORMAT>
  </FIELD>
  <FIELD ID="11">
    <TEXT>Air Pressure Switch Setting</TEXT>

```



```

        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="12">
        <TEXT>Air Pressure Switch Setting at Test Point</TEXT>
        <SUBTEXT>(HI/LO or Mod Gas Only)</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>Y</SKIPABLE>
    </FIELD>
    <FIELD ID="13">
        <TEXT>Air Pressure Switch Setting at Test Point at Low Fire</TEXT>
        <SUBTEXT>(Gas Air Mod)</SUBTEXT>
        <POST>Hz</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>Y</SKIPABLE>
    </FIELD>
    <FIELD ID="14" LINK="13">
        <TEXT>Air Pressure Switch Setting at Test Point at Low Fire</TEXT>
        <SUBTEXT>(Gas Air Mod)</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>Y</SKIPABLE>
    </FIELD>
    <FIELD ID="15">
        <TEXT>Air Pressure Switch Setting at Test Point at High Fire</TEXT>
        <SUBTEXT>(Gas Air Mod)</SUBTEXT>
        <POST>Hz</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>Y</SKIPABLE>
    </FIELD>
    <FIELD ID="16" LINK="15">
        <TEXT>Air Pressure Switch Setting at Test Point at High Fire</TEXT>
        <SUBTEXT>(Gas Air Mod)</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>Y</SKIPABLE>
    </FIELD>
    <FIELD ID="17">
        <TEXT>Inlet Gas Pressure</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="18">
        <TEXT>Gas Pressure at Start</TEXT>
        <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="19">
        <TEXT>Gas Pressure at Low Fire</TEXT>
        <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="20">
        <TEXT>Gas Pressure at High Fire</TEXT>
        <SUBTEXT>(All Systems) Comp. Air: Yes</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="21">
        <TEXT>Low Gas Pressure Switch Setting</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="22">
        <TEXT>High Gas Pressure Switch Setting</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>

```



```

        <POST>mbar</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="23">
        <TEXT>Flame Signal (High Fire)</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>DCµA</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="24">
        <TEXT>Process Temperature (Recorded During Visit)</TEXT>
        <SUBTEXT>(All Systems) °C</SUBTEXT>
        <POST>Min</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="25" LINK="24">
        <TEXT>Process Temperature (Recorded During Visit)</TEXT>
        <SUBTEXT>(All Systems) °C</SUBTEXT>
        <POST>Max</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="26">
        <TEXT>Combustion Fan Motor</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <FORMAT>DDL</FORMAT>
        <SKIPABLE>N</SKIPABLE>
        <ITEMS>
            <ITEM code="1ph" default="Y">1ph</ITEM>
            <ITEM code="3ph">3ph</ITEM>
        </ITEMS>
    </FIELD>
    <FIELD ID="27">
        <TEXT>Combustion Fan Motor Current at Low Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Hz</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="28" LINK="27">
        <TEXT>Combustion Fan Motor Current at Low Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Amp</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="29">
        <TEXT>Combustion Fan Motor Current at High Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Hz</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="30" LINK="29">
        <TEXT>Combustion Fan Motor Current at High Fire</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>Amp</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="31">
        <TEXT>Combustion Readings - O2</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>%</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="32">
        <TEXT>Combustion Readings - CO2</TEXT>
        <SUBTEXT>(All Systems)</SUBTEXT>
        <POST>%</POST>
        <FORMAT>N</FORMAT>
        <SKIPABLE>N</SKIPABLE>
    </FIELD>
    <FIELD ID="33">

```



```

    <TEXT>Combustion Readings - CO</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <POST>ppm</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="34">
    <TEXT>Flue Temperature at Low Fire</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <POST>°C</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<FIELD ID="35">
    <TEXT>Flue Temperature at High Fire</TEXT>
    <SUBTEXT>(All Systems)</SUBTEXT>
    <POST>°C</POST>
    <FORMAT>N</FORMAT>
    <SKIPABLE>N</SKIPABLE>
</FIELD>
<BUTTON CONFIRM="Confirm all Test Results are completed">
    <TYPE>C</TYPE>
    <TEXT>Complete</TEXT>
</BUTTON>
</FORM>

```



11 Appendix C: New UDF XSD

```

<xsd:schema attributeFormDefault="unqualified"
  elementFormDefault="qualified"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <xsd:element name="FORM">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element maxOccurs="unbounded" name="FIELD">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="TEXT" type="xsd:string" minOccurs="0" maxOccurs="1" />
              <xsd:element name="SUBTEXT" type="xsd:string" minOccurs="0" maxOccurs="1" />
              <xsd:element name="GROUP" type="xsd:string" minOccurs="0" maxOccurs="1" />
              <xsd:element name="POST" type="xsd:string" minOccurs="0" maxOccurs="1" />
              <xsd:element name="FORMAT" nillable="false">
                <xsd:simpleType>
                  <xsd:restriction base="xsd:string">
                    <xsd:enumeration value="X"/>
                    <xsd:enumeration value="N"/>
                    <xsd:enumeration value="T"/>
                    <xsd:enumeration value="B"/>
                    <xsd:enumeration value="DDL"/>
                  </xsd:restriction>
                </xsd:simpleType>
              </xsd:element>
              <xsd:element name="SKIPABLE" nillable="false">
                <xsd:simpleType>
                  <xsd:restriction base="xsd:string">
                    <xsd:enumeration value="Y"/>
                    <xsd:enumeration value="N"/>
                  </xsd:restriction>
                </xsd:simpleType>
              </xsd:element>
              <xsd:element minOccurs="0" nillable="true" name="VALUE" type="xsd:string" />
              <xsd:element minOccurs="0" name="ITEMS">
                <xsd:complexType>
                  <xsd:sequence>
                    <xsd:element name="ITEM" maxOccurs="unbounded" minOccurs="0">
                      <xsd:complexType>
                        <xsd:simpleContent>
                          <xsd:extension base="xsd:string">
                            <xsd:attribute type="xsd:string" name="CODE" use="optional"/>
                            <xsd:attribute type="xsd:string" name="DEFAULT" use="optional"/>
                          </xsd:extension>
                        </xsd:simpleContent>
                      </xsd:complexType>
                    </xsd:element>
                  </xsd:sequence>
                </xsd:complexType>
              </xsd:element>
            </xsd:sequence>
            <xsd:attribute name="ID" type="xsd:string" use="required" />
            <xsd:attribute name="LINK" type="xsd:string" use="optional" />
          </xsd:complexType>
        </xsd:element>
        <xsd:element maxOccurs="unbounded" name="BUTTON">
          <xsd:complexType>
            <xsd:sequence>
              <xsd:element name="TYPE" nillable="false">
                <xsd:simpleType>
                  <xsd:restriction base="xsd:string">
                    <xsd:enumeration value="C"/>
                    <xsd:enumeration value="I"/>
                    <xsd:enumeration value="X"/>
                  </xsd:restriction>
                </xsd:simpleType>
              </xsd:element>
              <xsd:element name="TEXT" type="xsd:string" />
            </xsd:sequence>
            <xsd:attribute name="CONFIRM" type="xsd:string" use="optional" />
          </xsd:complexType>
        </xsd:element>
      </xsd:sequence>
      <xsd:attribute name="NAME" type="xsd:string" use="optional" />
      <xsd:attribute name="REQUIRED" type="xsd:string" use="optional" />
      <xsd:attribute name="STATUS" type="xsd:string" use="optional" />
    </xsd:complexType>
  </xsd:element>

```



```
</xsd:complexType>  
</xsd:element>  
</xsd:schema>
```



12 Appendix D: TEST PLAN

Test Script / Scenario Reference	Configurable Post-Work Checks	Call Number(s): 311926 309371-9/10
Test Script / Scenario Description	To test specific Lanemark Post-work Checks UDF configuration and functionality.	PASS / ISSUES / FAIL
Menu Access	Services	
Pre-requisites	Ensure that the site being used has the UDF configuration as described in the Data section and Appendix B . Ensure there are single- and multiple-item jobs (with at least 3 items) to check.	Tested By:
Test Objective	To test that: Required checks are completed; validation is forced on the checks; validation is forced so that they are entered before any other information; status is displayed correctly and; data is updated correctly.	Date:

Step	Action	Result	Remarks	P/F
1	PDA - Process			
1.01	Start a single-item service job and complete any pre-work and info field entry required, noting the Group chosen. Press onto the <i>Diagnosis</i> tab.	The <i>Diagnosis</i> tab should be displayed.		
1.02	Check the Post-work button label	It says "Test Results (Incomplete)"		
1.03	Press the Post-work button.	The post-work pop-up is shown. The label says "Test Results". All fields required are present in a scrolling form. There is one button: Complete		
1.04	Press the Android Back key	A confirmation dialogue is displayed.		
1.05	Cancel this.	The Post-work pop-up is displayed again.		
1.06	Press the Android Back button and Confirm the confirmation dialogue.	The <i>Diagnosis</i> tab is shown again. The Post-work button label still says "Incomplete".		
1.07	Re-enter the Post-work pop-up. Press the Complete button.	A validation error should be displayed, as not all required information has been entered.		
1.08	Enter all required information. press the Complete button.	A confirmation dialogue is displayed.		
1.09	Press "No"	The Post-work pop-up is displayed again.		
1.10	Press the Complete button and press Yes on the confirmation dialogue.	The <i>Diagnosis</i> tab is shown again. The label says "Complete".		
1.11	Press the Post-work button.	A validation error should be displayed, as the Post-work checks have been completed.		
1.12	Complete this service-job.			



		All Post-work check information is saved and can be displayed and reported on.		
0.00	Start a new multiple-item job and complete any pre-work and info field entry required on all the serviceable items, noting the Group chosen. On the first item, move to the <i>Diagnosis</i> tab and press the Post-work button. Enter all required information. Press the Complete button and confirm.	The <i>Diagnosis</i> tab is shown again. The Post-work button label says "Complete".		
1.13	Press the Next button and move to the <i>Diagnosis</i> tab.	The next service item is shown. The Post-work button label says "Incomplete".		
1.14	Press the Next button on the <i>Info</i> tab, then the Post-work button on the <i>Diagnosis</i> tab.	The Post-work pop-up is displayed again, showing the tests required for this range.		
1.15	Press the Complete button and confirm.	The <i>Diagnosis</i> tab is shown again. The label says "Complete".		
1.16	Press the Prev button on the <i>Info</i> tab.	The previous service item is shown. The Post-work button label says "Complete".		
1.17	Press the Post-work button.	A validation error should be displayed, as the Post-work checks have been completed.		
1.18	Press the Next button on the <i>Info</i> tab, then the Post-work button on the <i>Diagnosis</i> tab.	A validation error should be displayed, as the Post-work checks have been completed.		
1.19	Press the Next button on the <i>Info</i> tab, then the Post-work button on the <i>Diagnosis</i> tab.	The Post-work pop-up is displayed again.		
1.20	Press the Back key and confirm. Press the Prev button on the <i>Info</i> tab, move to the <i>Diagnosis</i> tab and press Done .	A validation error should be displayed, as not all Post-work checks for all items have been completed.		
1.21	Press the Next button on the <i>Info</i> tab. Change the Range to a different range, then press the Post-work button on the <i>Diagnosis</i> tab.	The Post-work pop-up is displayed again, showing the correct tests for that product range.		
1.22	Complete entry for all items on this service job and complete this job.	All Post-work check information is saved and can be displayed and reported on for the job.		



13 Appendix E: Quote & Document References

Cost Details			
Activity	No. of Days	Rate per Day (?)	Cost (? Exc. VAT)
Requirements	0.00	0	?0.00
Change Request Evaluation	0.00	0	?0.00
Functional Specification	0.50	0	?0.00
Technical Specification	0.00	0	?0.00
Development	1.75	0	?0.00
Testing and Release	0.50	0	?0.00
Implementation	0.00	0	?0.00
Project Management	First argument to "number_format" must be a number.	0	?First argument to "number_format" must be a number.
TOTAL	First argument to "number_format" must be a number.		?First argument to "number_format" must be a number.

Estimate excludes training, release to live and go live support.

E.1 References

Ref No	Document Title & ID	Version	Date
1	UG 291094 EPOD Admin User Guide	2.0	4/4/2012
2	UG 291097 EPOD Client User Guide	3.0	23/4/2013
3	REQ 309371 Lanemark eSERV Requirements	0.4	29/08/2013
4	FS 311636 UDF Modifications	0.3	05/09/2013
5	FS 311856 Multiple Serviceable Items	0.1	10/09/2013

E.2 Glossary

Term	Definition
EPOD	Electronic Proof of Delivery. The OBS EPOD system is <i>CALIDUS</i> ePOD.
<i>CALIDUS</i> eSERV	The OBS mobile system to complete Service functionality in the field. This is part of the <i>CALIDUS</i> ePOD system.
PDA	The mobile device on which the C-ePOD system will run in the field. This can be a Phone, EDA or industrial PDA, running Android.
DAL	Data Access Layer. A mechanism for accessing data by the system that is removed from the application, allowing for simplified access and providing protection to the data, as only approved DAL methods can be used to modify it.
GPS	Global Positioning System. A mechanism of retrieving accurate positioning information in the form of Latitude and Longitude (Lat-Long) co-ordinates from a device.
GPRS, 3G, HSDPA, Data Service	All terms referring to mobile device network connectivity, and the speed at which the device connects to the internet.

E.3 Authorised By

Julie Taylor	OBS Project Manager	_____
Jeff Foster	Client Representative	_____
Alan Thompson	Client Representative	_____

