

## Introduction

This user's manual explains how to use Fuchs CENT program effectively

CENT is a web based application; i.e., it can be accessed through internet by using an internet browser. The URL address for CENT application is [www.cent.fuchs.com.sa](http://www.cent.fuchs.com.sa)  
To use the system more efficiently it is required that an Acrobat to be installed on the machine.

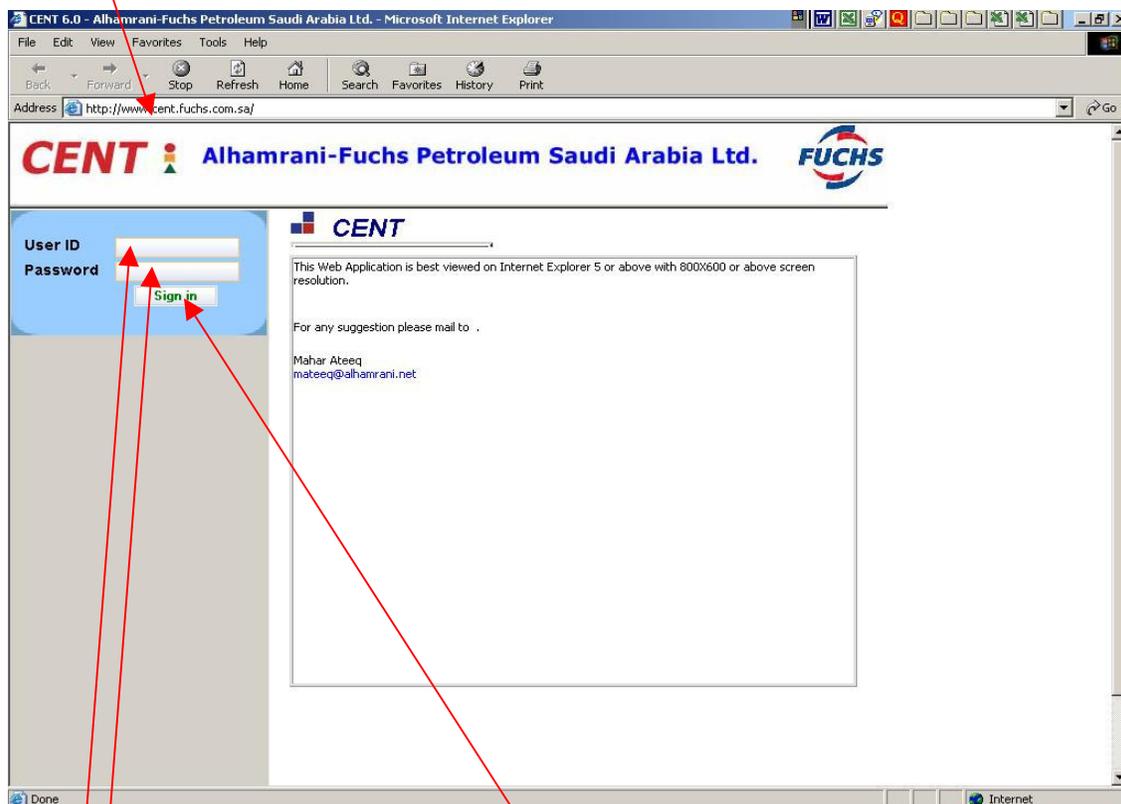
### CENT Login Screen

CENT access is granted only to the registered users of the customers who are using CENT service from Fuchs. Therefore prior to use the system, the user should have already a user id and password issued to him by Fuchs. If you do not have a user id yet; please contact the nearest Fuchs branch or the contact numbers mentioned above.

To start using the system please follow the following steps:

1. Type the URL of CENT application in the address bar of the Internet browser (weather Internet Explorer or Netscape Navigator) and press enter

The following screen shown in fig 1 will be displayed



**Fig. 1**

2. Enter the user name and press tab.
3. Enter the password and click on Sign in button.

Once logged in, the system will display only the related records of that customer based on the authorizations assigned to the user of that customer. If the logged in user did not use the system for sometime then he will be logged out automatically.

## CENT Screen Interface General Features

In order to ease the navigation through the system and gives more familiarity to the user using the system, a common layout and features used across all screens of the system. The following sample screen (Fig. 2) explains this commonality:

The screenshot shows a web browser window displaying the CENT application. The browser title is "Cannot find server - Microsoft Internet Explorer". The address bar shows "http://www.cent.fuchs.com.sa/CENT6\_NewSamp.aspx". The page header includes the CENT logo, "Alhamrani-Fuchs Petroleum Saudi Arabia Ltd.", and the FUCHS logo. The user name "Asghar" is displayed in the top left. The main content area is titled "Samples Received from CENT Lab." and "Fuchs Plant Workshop". It features a table of samples with columns for Lab Code, CENT Code, Regs. Date, Equipment, and Sample Point. The table contains five rows of data. A "Main Menu" is located on the left side, listing various options like "New Samples", "Search Samples", "Equipments", "Print Labels", "Contacts", "Schedules", "Reports", "Feed Back", "CENT Options", and "Approve Samples".

Annotations in the image identify the following features:

- Current Screen Name:** Points to the header text "Alhamrani-Fuchs Petroleum Saudi Arabia Ltd."
- Customer Name:** Points to the "FUCHS" logo.
- User Name:** Points to the "Asghar" text in the top left.
- Main Menu:** Points to the left-hand navigation menu.
- Actions/Results Screen:** Points to the main content area containing the sample table.

| Lab Code | CENT Code    | Regs. Date  | Equipment                   | Sample Point |
|----------|--------------|-------------|-----------------------------|--------------|
| 18353    | 0002/0019/01 | 01-Dec-2004 | NISSAN CIVILIAN BUS 2002    | ENGINE SUMP  |
| 18392    | 0002/0010/01 | 11-Dec-2004 | MERCEDEZ 2038               | ENGINE SUMP  |
| 18461    | 0002/0019/01 | 19-Dec-2004 | NISSAN CIVILIAN BUS 2002    | ENGINE SUMP  |
| 18732    | 0002/0010/01 | 11-Jan-2005 | MERCEDEZ 2038               | ENGINE SUMP  |
| 20016    | 0002/0018/01 | 29-Mar-2005 | MERCEDESE BENZ 2040 OF 2004 | ENGINE SUMP  |

Fig. 2

## CENT Main Menu

### 1 New Samples Screen

By default this screen is displayed once the user logs in. This screen displays the last samples received from the lab which belong to the current customer. Different options are available in this screen which are the following:

- 1- The list can be filter based on their status, e.g., the user can display only those samples which are in Action Status - red color, or any other status or display them all.
- 2- The list can be sorted based on different references, e.g., Lab code; Registration code; CENT code; and Alert code
- 3- If the user wants to remove one sample or more from the New Samples List, then he should click on the check box(s) beside those samples (3.a) and then click the button at the top labeled “Hide Sample From New Sample List” (3.b).Hiding a sample from the list does not mean it is removed from the system , It only means it will not be visible in the recent samples list but it will be available in the sampling history of the equipment
- 4- To display the details of one of the sample, the user can click on the Lab Code of that sample which written in blue color. Once clicked the system will display the screen in Fig. 4

The screenshot shows the 'New Samples' screen in a web browser. The interface includes a navigation menu on the left, a header with logos for CENT, Alhuda, and FUCHS, and a main content area. The main content area has a table of samples with columns for Lab Code, CENT Code, Regs. Date, Equipment, and Sample Point. Annotations with red boxes and arrows point to specific features: 1) A box labeled '1) To filter the displayed samples based on their status' points to the 'Show Samples with Alert Level' dropdown menu. 2) A box labeled '2) To sort the displayed samples based on different reference codes' points to the 'Sort Samples By' dropdown menu. 3) A box labeled '3) To remove sample from the list' contains sub-points: '3.a) Click the check box of the sample' pointing to a checkbox in the first column, and '3.b) Click on the upper button' pointing to the 'Hide Sample From New Sample List' button. 4) A box labeled '4) To display the sample details' points to the 'Lab Code' column header.

|                          | Lab Code | CENT Code    | Regs. Date  | Equipment                   | Sample Point |
|--------------------------|----------|--------------|-------------|-----------------------------|--------------|
| <input type="checkbox"/> | 18353    | 0002/0019/01 | 01-Dec-2004 | NISSAN CIVILIAN BUS 2002    | ENGINE SUMP  |
| <input type="checkbox"/> | 18392    | 0002/0010/01 | 11-Dec-2004 | MERCEDEZ 2038               | ENGINE SUMP  |
| <input type="checkbox"/> | 18461    | 0002/0019/01 | 19-Dec-2004 | NISSAN CIVILIAN BUS 2002    | ENGINE SUMP  |
| <input type="checkbox"/> | 18732    | 0002/0010/01 | 11-Jan-2005 | MERCEDEZ 2038               | ENGINE SUMP  |
| <input type="checkbox"/> | 20046    | 0002/0018/01 | 29-Mar-2005 | MERCEDESE BENZ 2040 OF 2004 | ENGINE SUMP  |

Fig. 3

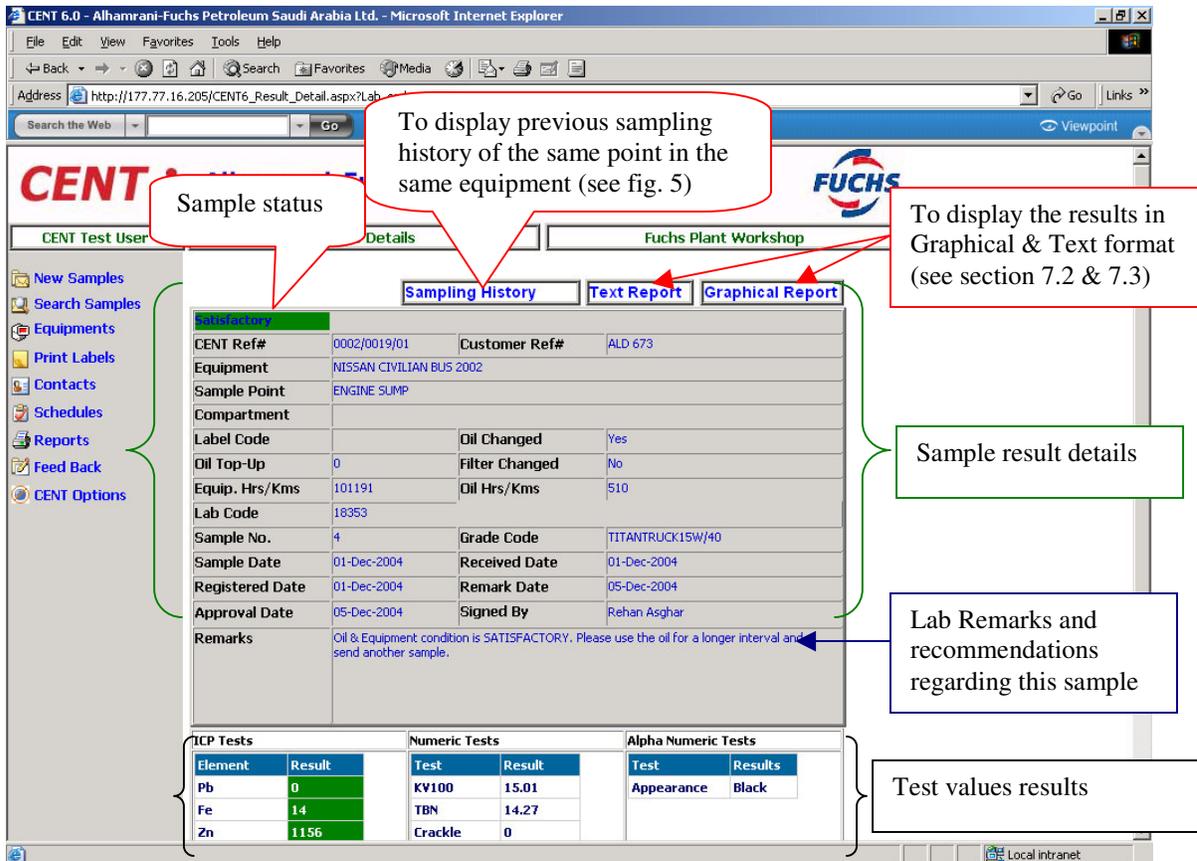


Fig 4

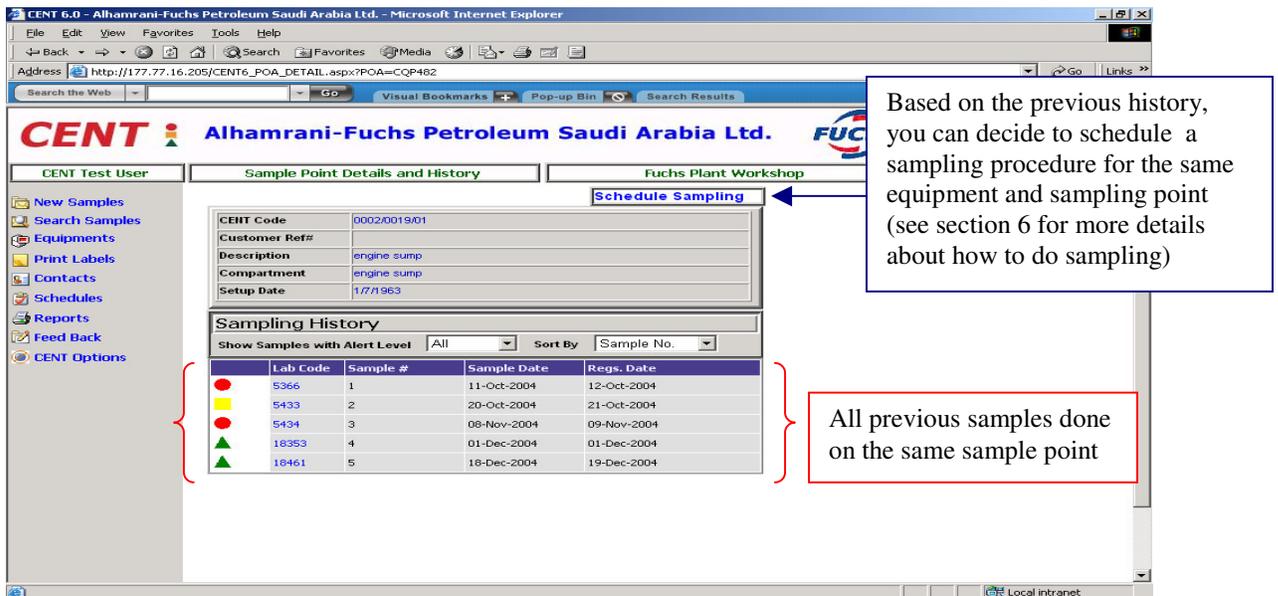


Fig. 5

## 2 Search Samples

This also is a powerful tool to inquire about previous sampling done for certain sampling point/equipment during previous period. The user will select from the drop down menus the required equipment along with the sampling point and then decide the starting and ending date in the format of DD/MM/YYYY and click “Start Search” button. The user can select which status should be displayed (Satisfactory, Caution, Action, or All).

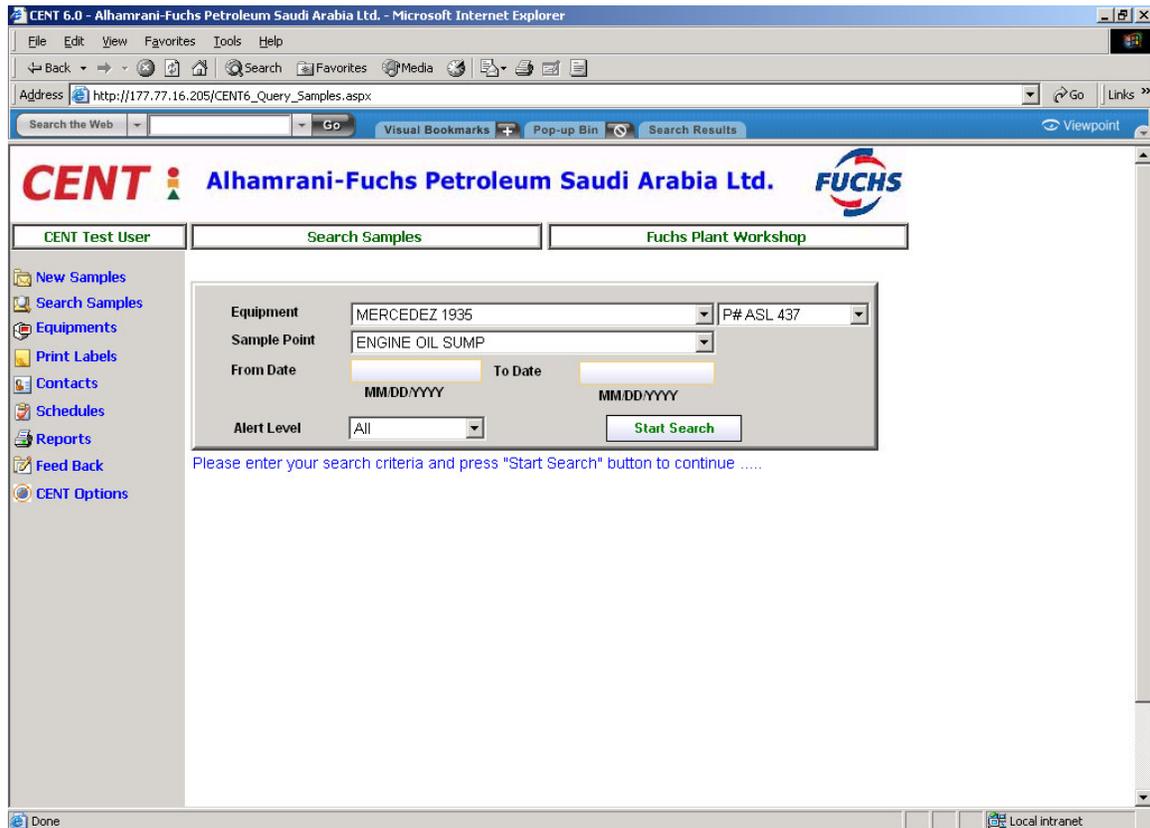


Fig. 6

The resulted list will be similar to the one shown in Fig. 5 which displays all previous sampling done for that sample point within the specified period. Again from that list you can click on any sample to view its details. The user can also perform scheduling (see section 6 for more details).

### 3 Equipments

This option is drilldown screen from which the customer user can view all equipments defined in CENT for that customer. The displayed list can be sorted and viewed on many different sorting keys (CENT code, Customer ref #, Description, Type, Manufacturer, and Model).

**CENT 6.0 - Alhamrani-Fuchs Petroleum Saudi Arabia Ltd. - Microsoft Internet Explorer**

Address: [http://177.77.16.205/CENT6\\_Equipments.aspx](http://177.77.16.205/CENT6_Equipments.aspx)

**CENT** Alhamrani-Fuchs Petroleum Saudi Arabia Ltd. **FUCHS**

CENT Test User      Equipments      Fuchs Plant Workshop

Please Click here to get Report on Equipment Setup in CENT with their Sample Points Details

Sort Equipment By: CENT Code (Page 1 of 1)

| CENT Code | Customer Ref# | Description                     | Type           | Manufacturer   | Model                    |
|-----------|---------------|---------------------------------|----------------|----------------|--------------------------|
| 0002      | DTQ 229       | MERCEDES 1935                   | Tractor        | Mercedes Benz  | MB 1935                  |
| 0003      | LWS 201       | MERCEDES 1935                   | Tractor        | Mercedes Benz  | MB 1935                  |
| 0005      | ACL 918       | MERCEDEZ 1924                   | Truck          | Mercedes Benz  | MB 1924                  |
| 0008      | P# ASL 437    | MERCEDEZ 1935                   | Tractor        | Mercedes Benz  | MB 1935                  |
| 0009      | P# DLS 151    | MERCEDEZ 1935                   | Tractor        | Mercedes Benz  | MB 1935                  |
| 0010      | P# ASL 919    | MERCEDEZ 2038                   | Tractor        | Mercedes Benz  | MB 2038                  |
| 0011      | P# 038 ATA    | INTERNATIONAL 3800, 1997        | Bus            | Ingersoll Rand | International 3800, 1997 |
| 0012      | P# AQA 175    | NISSAN CIVILIAN BUS             | Bus            | Nissan         | Unknown                  |
| 0013      | P# ABA 095    | NISSAN CIVILIAN BUS             | Bus            | Nissan         | Unknown                  |
| 0014      | P# HQN 733    | MITSUBISHI TRUCK MODEL # (1997) | Pick-up        | Mitsubishi     | Mitsubishi Diesel 1997   |
| 0015      | 1935          | MERCEDEZ TRACTOR HEAD 1935      | Tractor        | Mercedes Benz  | MB 1935                  |
| 0016      | P# DON 572    | NISSAN URVAN BUS MODEL # 1990   | Bus            | Nissan         | Nissan Urvan 1990        |
| 0017      | TEST          | MAN B & W 1983 TURBINE          | Turbine System | MAN            | Unknown                  |
| 0018      | SYT 154       | MERCEDESE BENZ 2040 OF 2004     | Tractor        | Mercedes Benz  | MB 2040 Year 2004        |
| 0019      | ALD 673       | NISSAN CIVILIAN BUS 2002        | Bus            | Nissan         | Nissan Civilian Bus 2002 |

Fig. 7

To see all sampling points of a specific equipment, click on the CENT Code which is displayed in blue color. Once clicked a list of all sampling points under this machine is displayed (see fig. 8).

#### 4. Equipment Details and Its Sample Points :

This screen displays all sampling points of that equipment along with its description and compartment. If desired, the user can drilldown one more level and see the details of that sampling point.

The screenshot shows the CENT 6.0 web application interface. The browser title is "CENT 6.0 - Alhamrani-Fuchs Petroleum Saudi Arabia Ltd. - Microsoft Internet Explorer". The address bar shows "http://177.77.16.205/CENT6\_POA.aspx?CQ\_REF=CQ2038". The page header includes the CENT logo, "Alhamrani-Fuchs Petroleum Saudi Arabia Ltd.", and the FUCHS logo. Below the header, there are three tabs: "CENT Test User", "Equipment Detail and Its List of Sample Points", and "Fuchs Plant Workshop". The "Equipment Detail and Its List of Sample Points" tab is active. On the left, there is a navigation menu with items like "New S", "Search", "Equipr", "Print L", "Conta", "Schedu", "Reports", "Feed Back", and "CENT Options". The main content area displays a table with the following data:

|                     |  |  |
|---------------------|--|--|
| 0012                |  |  |
| P# AQA 175          |  |  |
| NISSAN CIVILIAN BUS |  |  |
| Bus                 |  |  |
| Nissan              |  |  |
| Unknown             |  |  |

Below this table is a table with the following data:

| S  | Description | Compartment |
|----|-------------|-------------|
| 01 | ENGINE SUMP | E.S         |
| 02 | GEAR BOX    | G.BOX       |

A red callout box with a white background and a red border points to the "S" column of the second table. The text inside the callout box reads: "Click to see all sampling history of this sampling point (see fig 5)".

Fig. 8

## 5 Print Labels

In this option the user can print labels to be attached to the samples bottles. It can print one label only up to any number of labels. The user can select the sampling point for which the label will be printed directly from the sample point dropdown menu or through a different key such as the CENT code or customer code. More details can be entered in the remaining fields. To give more flexibility the user, can first select and define all labels to be printed one a at a time, and then issue print command for all defined labels. To do this, the user will create the label then save it in the current batch one label at a time. Once finished defining all labels, the user will click the button “Get Labels”, which will get all labels saved in the current batch and generate a PDF file which can be sent at one time only to save time and paper. The different options available are:

- Save in current label batch: to save the created label in the current batch but without printing it.
- Save in current label batch and print labels: this option is a combination of both the other two options, i.e., create the label and print all labels exist in the current batch. This option is useful when creating one label only or when creating group of labels at the time of print the last label before issuing the printing command for previously created labels.
- Get Labels: to execute the print command for all labels created and saved in the current batch and generate a PDF file.

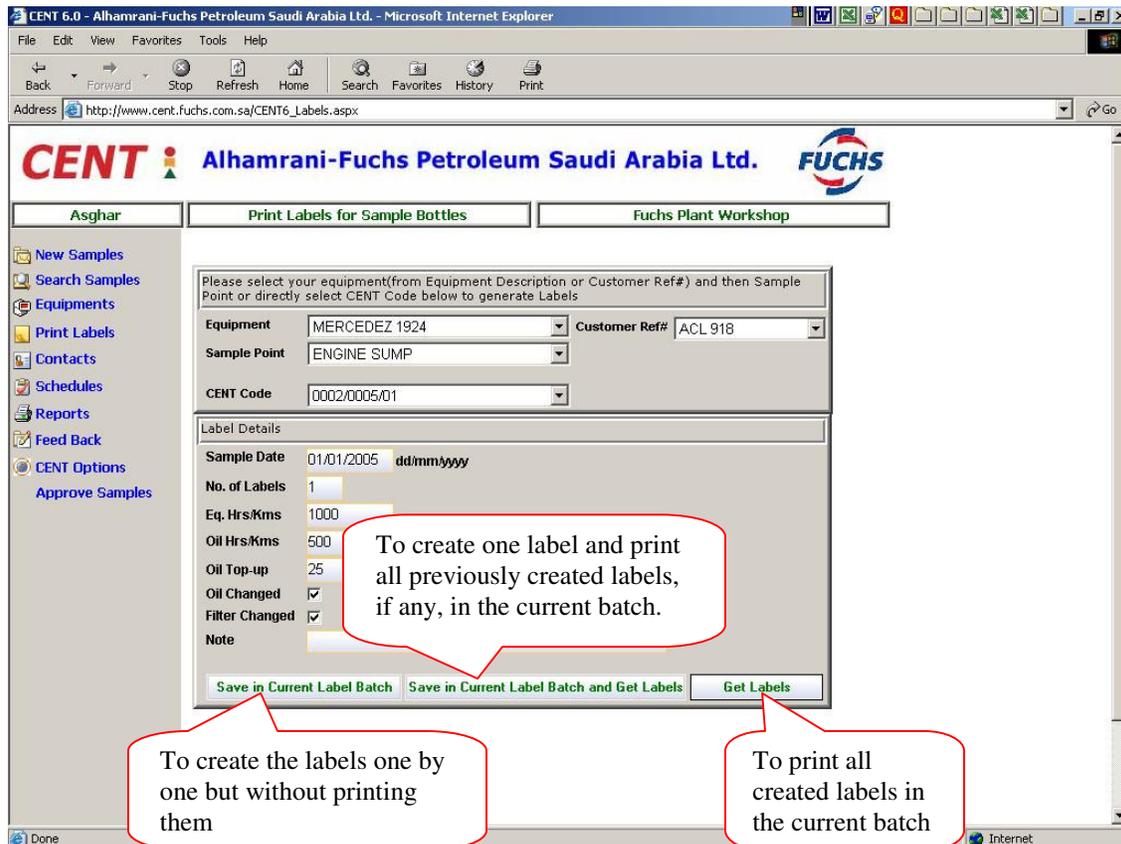


Fig. 9

## Label sample

0002/0005/01 21

Fuchs Plant Workshop  
MERCEDEZ 1924  
ENGINE SUMP  
Lubricant: ACL 918  
Oil Hrs/Kms: 500 Oil Top-up: 25  
Eq. Hrs/Kms: 1,000 Oil Changed: Yes Filter Changed: Yes  
Sample Date: 01-Jan-2005

Label created in the PDF format. All entered details by the user appear here

Done 1 of 1 8.26 x 11.68 in Internet

Fig. 10

## 6 Contacts

This option gives the customer a facility to maintain (add/update/delete) the contacts' profiles who will receive the notifications from CENT. When the customer user clicks the "Contacts" option from the main menu, the list of all contacts names of that customer will be displayed then he can click on contact name to modify its profile (fig. 11). The user can also add a new contact name and profile by click on the button at the top as shown below. The contact profile screen is shown on Fig. 12.

The screenshot shows the CENT 6.0 web application interface. The browser title is "CENT 6.0 - Alhamrani-Fuchs Petroleum Saudi Arabia Ltd. - Microsoft Internet Explorer". The address bar shows "http://177.77.16.205/CENT6\_Contacts.aspx". The page header includes the CENT logo, the text "Petroleum Saudi Arabia Ltd.", and the FUCHS logo. The navigation menu on the left includes: New Samples, Search Samples, Equipments, Print Labels, Contacts, Schedules, Reports, Feed Back, and CENT Options. The main content area has three tabs: "CENT Test User", "Customer's Contacts", and "Fuchs Plant Workshop". Under the "Customer's Contacts" tab, there is a "New Contact" button. Below it is a table with the following data:

| Name                      | Designation           | City  | Country      |
|---------------------------|-----------------------|-------|--------------|
| Mr. Muhammad Zulhash Miah | Section Head Workshop | Yanbu | Saudi Arabia |

Two callout boxes are present: one pointing to the "New Contact" button with the text "To add a new contact", and another pointing to the contact name "Mr. Muhammad Zulhash Miah" with the text "Click to change the profile of the contact".

Fig. 11

## Contact Profile Screen

In this screen the user can add and/or modify contact's profile. The user can define in this screen how this contact person is going to receive the results notification from CENT lab whether by email or fax. The type of the report to be sent; Graphical or Textual. Also on which level the report will be sent, e.g., different users can be defined for different levels of status.

The screenshot shows a web browser window titled "CENT 6.0 - Alhamrani-Fuchs Petroleum Saudi Arabia Ltd. - Microsoft Internet Explorer". The address bar shows "http://177.77.16.205/CENT6\_Contact\_Detail.aspx?NO=47". The page header includes the "CENT" logo, "Alhamrani-Fuchs Petroleum Saudi Arabia Ltd.", and the "FUCHS" logo. Below the header are three tabs: "CENT Test User", "Contact Details", and "Fuchs Plant Workshop". A left sidebar contains a menu with items: "New Samples", "Search Samples", "Equipments", "Print Labels", "Contacts", "Schedules", "Reports", "Feed Back", and "CENT Options". The main content area displays a form for "Contact Details" with the following fields and options:

|                    |   |
|--------------------|---|
| Name               | Mr. Muhammad Zulhash Miah   |
| Designation        | Section Head Workshop   |
| Country            | Saudi Arabia  |
| City               | Yanbu   |
| Email Addr.        | mwasim@fuchs.com.sa   |
| Mobile             |   |
| Telephone          | 3962467 / 163   |
| Fax                | 3963783   |
| Address            |   |
| Note               | USED OIL SAMPLES TO BE S  |
| Report Medium      | <input checked="" type="checkbox"/> Email <input type="checkbox"/> Fax  |
| Report Type        | <input checked="" type="checkbox"/> Graphical <input checked="" type="checkbox"/> Textual   |
| Report Alert Level | <input checked="" type="checkbox"/> Action <input checked="" type="checkbox"/> Caution <input checked="" type="checkbox"/> Satisfactory |

At the bottom of the form are two buttons: "New Contact" and "Save".

Fig. 12

## 7 Schedules

This option is of a great value and extends the functionality of CENT to a higher level in which it works as an organizer. The main objective of this option is to help the customer do a better maintenance of his equipments by reminding him to do the sampling tests on time. The interval between each sampling can be days, weeks, months, or years depending on the equipment itself. This will be of a great help to avoid forgetting a critical sampling test.

Once a schedule created the system will send email alerts to the specified contact one day in advance to remind them about the due date of the sampling.

The user will select the required equipment and sampling point of that equipment or instead he can directly select the required sampling point by referring directly to the CENT code if it is known to him.

Once that is selected, all the user has to do is to define the interval periods and the starting date as shown in the screen below (fig. 13). Once all fields defined click the button “Save schedule” to generate the schedule in the system. The system will send email alerts to all contacts mentioned one day prior to the due date of the next schedule. Maximum of 3 contacts can be defined in this screen. The user has to make sure that the mentioned contacts has a valid email defined in their contact profiles.

The user can also generate a report about all defined schedules in the system, if any, by clicking on the hyperlink on the top (in blue color)

The screenshot shows the CENT software interface for scheduling equipment sampling. The interface includes a navigation menu on the left with options like 'New Samples', 'Search Samples', 'Equipments', 'Print Labels', 'Contacts', 'Schedules', 'Reports', 'Feed Back', 'CENT Options', and 'Approve Samples'. The main form contains the following fields and options:

- Equipment:** MERCEDEZ 1924
- Customer Ref#:** ACL 918
- Sample Point:** ENGINE SUMP
- CENT Code:** 0002/0005/01
- Next Schedule:** 01-Feb-2005
- Every:** 1 Month
- Starting Date:** 01/01/2005
- Contacts:** A list of contacts to be notified, with 'Mr. Muhammad Zulhash Miah' selected.
- Buttons:** 'Save Schedule' and a blue hyperlink: 'Please Click here to get Report of Scheduled Equipment and their Schedule Details'.

Red callout boxes highlight the following features:

- A blue hyperlink: 'Please Click here to get Report of Scheduled Equipment and their Schedule Details'.
- A dropdown menu for intervals: 'Intervals can be days, weeks, months, or years'.
- A list of contacts: 'Up to 3 contacts can be defined'.

Fig. 13

## 8. Reports

The reports section provides a very useful reports which can be used by the customer to help him do a better maintenance and planning for the equipments. Currently five reports are available and more reports will be added in the future. These reports are:

1. Monitoring review for a period
2. Condition monitoring report graphical
3. Condition monitoring report textual
4. List of equipment setup in CENT with sample points
5. List of scheduled equipment and their schedule details

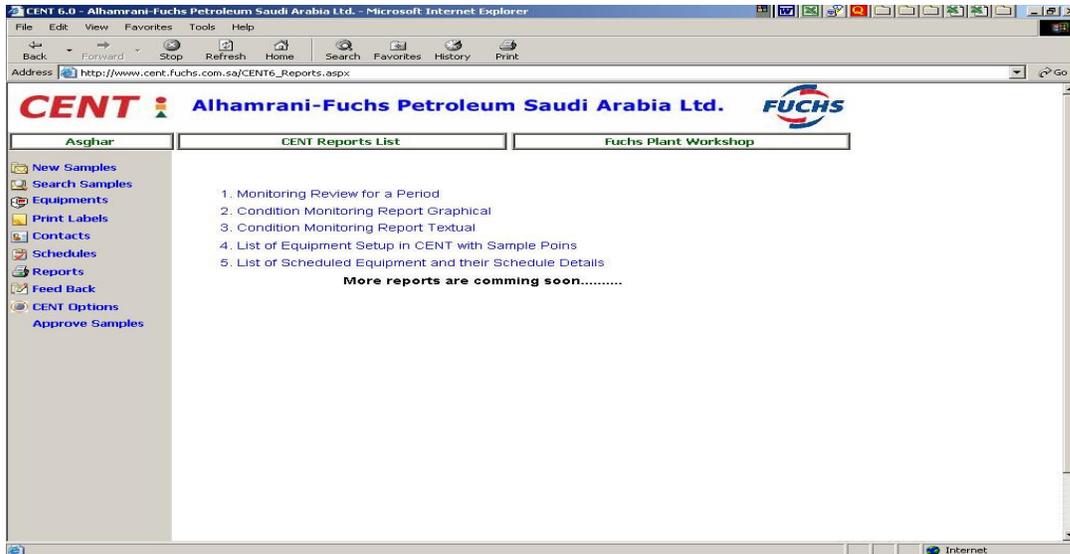


Fig. 14

### 8.1 Monitoring Review for a period

This is a very comprehensive report which gives a complete history of all samples done within a specific period categorized and sorted by equipments/sample points in one report. Based on this report, the customer can make better decisions in increasing the sampling intervals or reducing them for a specific sample point/equipment. To generate the report the user has to feed the starting and ending dates for which the report is required as shown in the following screen.

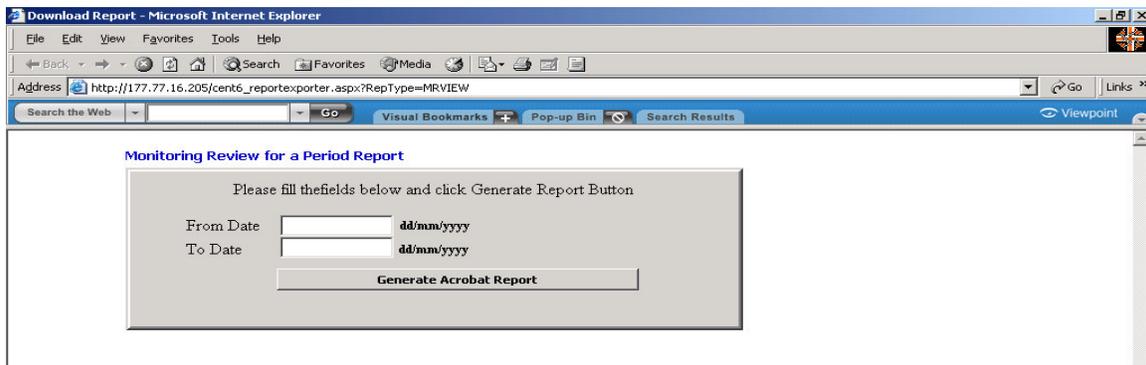


Fig. 15

The report sample is shown below (Fig. 16)

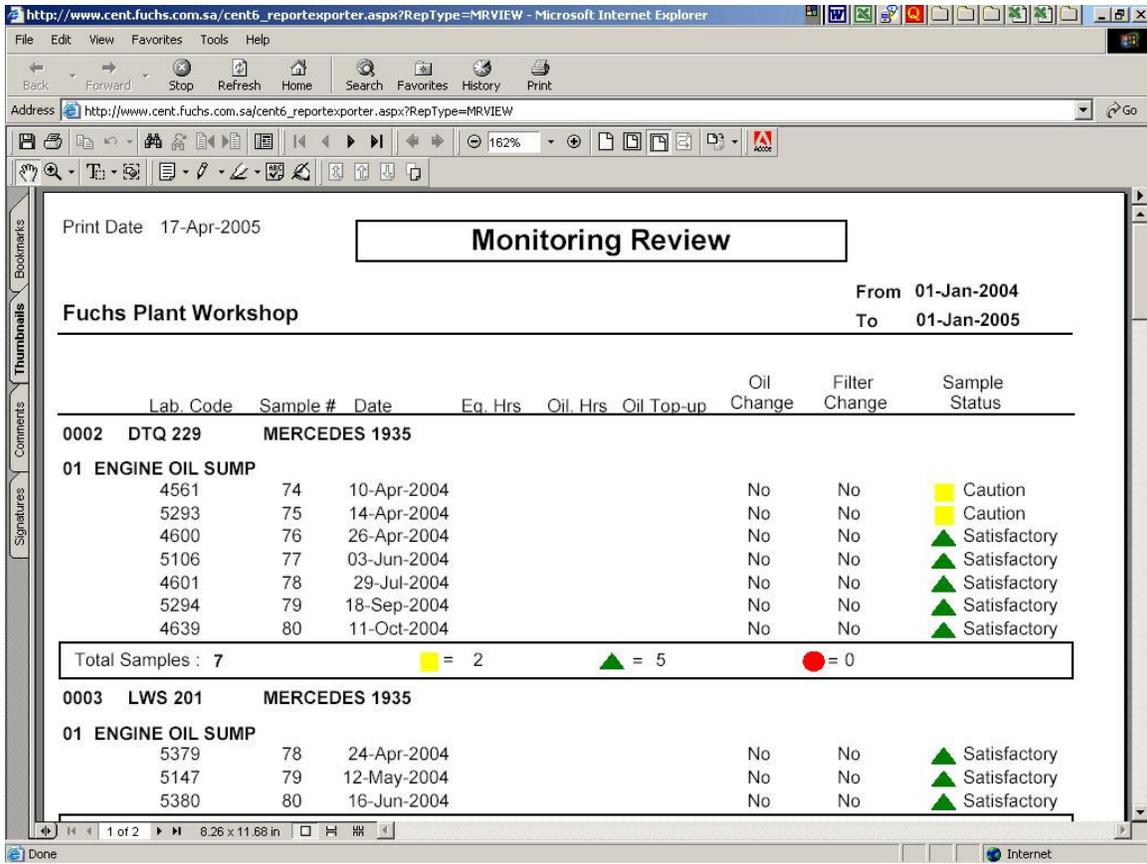


Fig. 16

### 8.2 Condition Monitoring Graphical Report

This is another useful report which displays for a specific sample the results in graphical format as shown below (fig. 17). The same report can be generated from the sample details screen (fig. 4).

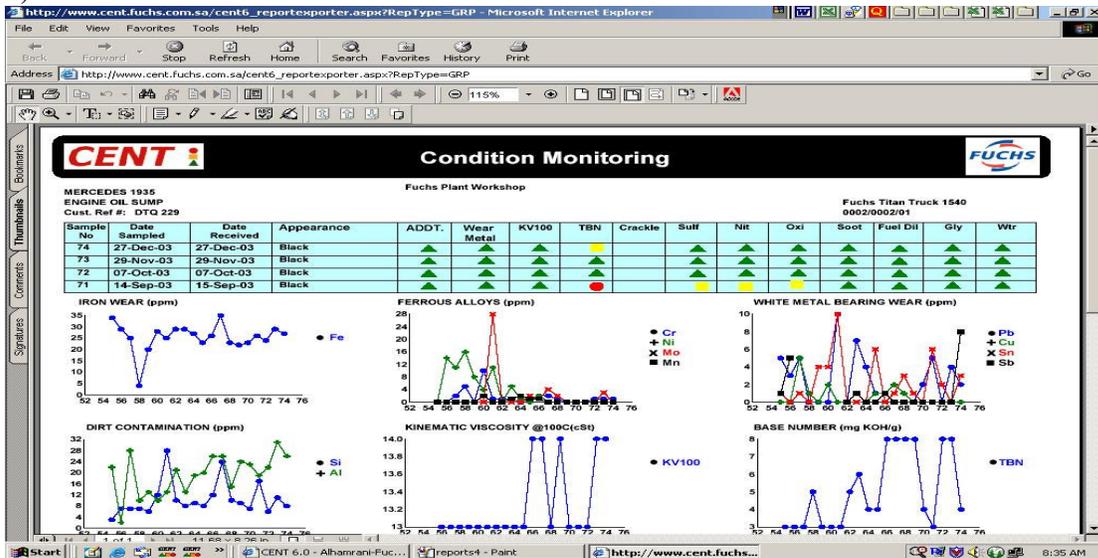


Fig. 17

### 8.3 Condition Monitoring Textual Report



**Equipment Sampling Schedules**

**CENT**

**Fuchs Plant Workshop** Print Date : 17-Apr-2005

| CENT Code    | Customer Ref# | Equipment     | Sample Point | Schedule      | Last Date | Next Date |
|--------------|---------------|---------------|--------------|---------------|-----------|-----------|
| 0002/0005/01 | ACL 918       | MERCEDEZ 1924 | ENGINE SUMP  | Every 1 Month |           | 01-Feb-05 |

Done | 1 of 1 | 8.26 x 11.68 in | Internet

Fig. 20

## 9. Feedback

As a customer user, you can communicate with CENT Lab for any comments or requirements. This is a very good feature which ensures that your requests will be delivered to the right people at the right time.

All you have to do is to type the message you want to deliver with a proper subject heading and click “Submit” button as shown in the screen below (fig. 21)

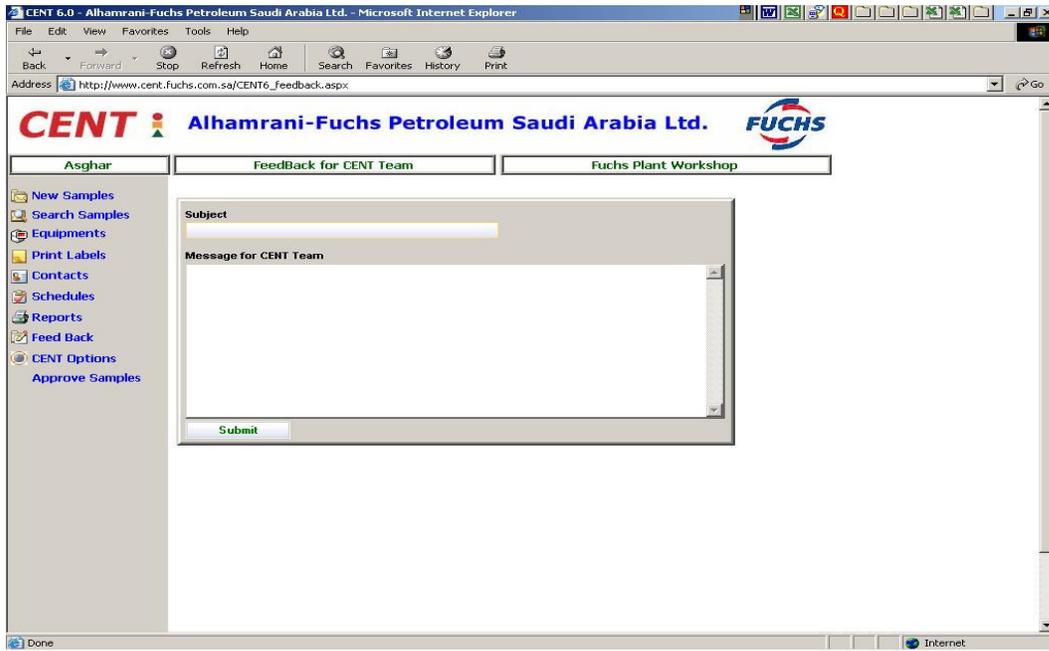


Fig 21

## 10. CENT Options

From this screen (fig 22), the user can change the default behavior of CENT application. If the same user has authorization for more than one customer, then he can also change the following:

- Current customer: in this option the user can change into another customer so the system will always display the information related to this customer, e.g., equipments, samples, reports...)
- Default customer: in this option the user can change which customer the system should automatically start the system with.

The user can also change the number of the samples displayed at one time on the screen. First enter the desired number of samples then click the button “Set Display Properties”. This option gives more flexibility to the users who have different screen resolutions.

User can change his password. He has first enter his old password and then enter the new password and confirm it. First enter the old password, then type the new password and confirm it, then press the button “Change Password”.

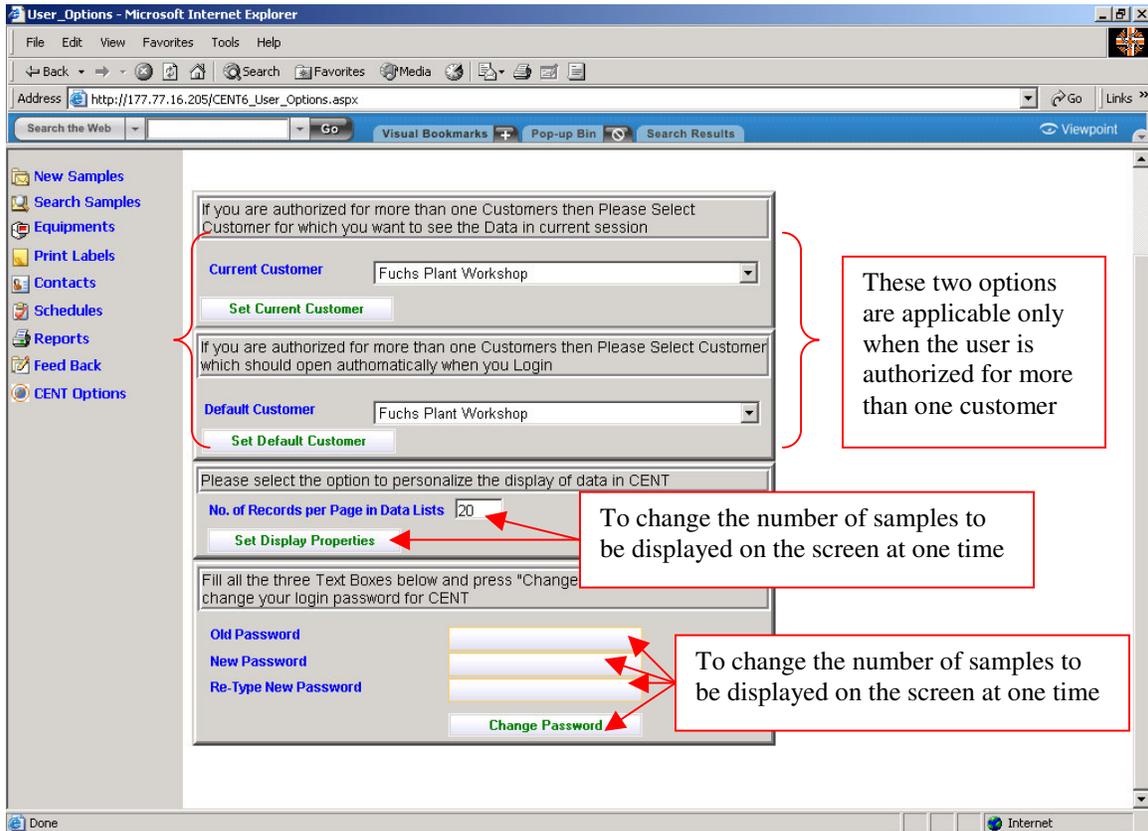


Fig 22

## 11. Approve Samples

This option is only for Sales People. When they login they are directly taken to this menu. Here they can view reports, approve or reject them. If they approve then the customer will receive an email alert that these reports are ready. The customer can view the reports only after the relevant sales person approves the reports. (This check can be removed on request of the sales person, so the customer receives the report directly).

This option is available only for salespeople

| Lab Code | CENT Code    | Date | Equipment                   | Sample Point    |
|----------|--------------|------|-----------------------------|-----------------|
| ▲ 19604  | 0002/0018/01 |      | MERCEDESE BENZ 2040 OF 2004 | ENGINE SUMP     |
| ▲ 19799  | 0002/0002/01 |      | MERCEDES 1935               | ENGINE OIL SUMP |
| ▲ 20056  | 0002/0002/01 |      | MERCEDES 1935               | ENGINE OIL SUMP |
| ▲ 20119  | 0002/0003/01 |      | MERCEDES 1935               | ENGINE OIL SUMP |

Fig 23

| Element | Result | Test    | Result | Test       | Results |
|---------|--------|---------|--------|------------|---------|
| Pb      | 2      | KV100   | 13.06  | Appearance | Black   |
| Fe      | 22     | TBN     | 11.97  |            |         |
| Zn      | 1164   | Crackle | 0      |            |         |
| Si      | 3      | Sulf    | 0.13   |            |         |

Fig 24