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1 General XML file

```

<?xml version="1.0" encoding="utf-8"?>
<FQD xmlns:xml="http://www.w3.org/XML/1998/namespace"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" >
  <reportingYear> 'Contacts&Annual Summary'!C8</reportingYear>
  <countryID> 'Contacts&Annual Summary'!C9
  <!--code list CountryByPeriod -->
  </countryID>
  <reportDate> 'Contacts&Annual Summary'!C10</reportDate>
  <generalSummary> 'Contacts&Annual Summary'!B41</generalSummary>
  <MSContact/>
  <FQMS/>
  <Sales/>
  < RegionalSamplings/>
  <Petrols/>
  <Diesels/>
</FQD>

```

The following labels are in the sheet "Contacts&Annual Summary":

- reportingYear
- countryID
- dateReport
- summary

2 Sheets

2.1 Contacts&Annual Summary – (<MSContact>)

Label	Data Type	Validation	Level error	Mandatory
reportingYear	int(4)	Must be provided <u>Message Error:</u> Reporting year must be provided.	BLOCKER	Yes
countryID -> {C9}	nvarchar(3) <i>Code list:</i> (CountrybyPeriod)	Must be provided <u>Message Error:</u> The country must be provided.	BLOCKER	Yes
reportDate -->{C10}	nvarchar(100)	Must be provided <u>Message Error:</u>	BLOCKER	Yes

		Data report completed must be provided.		
generalSummary -- > {B41}	ntext	Must be provided <u>Message Error:</u> General Summary of analysis and additional information must be provided.	BLOCKER	Yes
contact -- > {C15}	nvarchar(255)	Must be provided with <u>Message Error:</u> The person responsible for the report must be provided.	BLOCKER	Yes
organisation -- > {C11}	nvarchar(255)	Must be provided <u>Message Error:</u> Organisation responsible for report must be provided.	BLOCKER	Yes
streetName -- > {C12}	nvarchar(255)	Must be provided <u>Message Error:</u> Address of organisation street must be provided.	BLOCKER	Yes
cityName -- > {C13}	nvarchar(50)	Must be provided <u>Message Error:</u> City must be provided.	BLOCKER	Yes
postCode -- > {C14}	nvarchar(20)	Must be provided <u>Message Error:</u> Postcode must be provided.	BLOCKER	Yes
telephone – {C16}	nvarchar(100)	Must be provided <u>Message Error:</u> The telephone number must be provided.	BLOCKER	Yes
email -- > {C17}	nvarchar(255)	Must be provided with a valid mail. <i>The regular expression inside XSD for the validation.</i> <u>Message Error:</u> Email must be provided with a valid mail.	BLOCKER	Yes

2.1.1 XML

```

<MSContact>
  <organisation>C11</organisation>
  <contact>C15</contact>
  <Address>
    <streetName>C12</streetName>
    <cityName>C13</cityName>
    <postCode>C14</postCode>
  </Address>
  <telephone>C16</telephone>
  <email>C17 <!--Regular expression inside XSD for the validation--></email>
</MSContact>

```

2.2 FQMS&Sampling / Detailed FQMS – (<FQMS/>)

Label	Data Type	Validation	Level Error	Mandatory
periodStart (S) --> {C13}	nvarchar(100)	Must be provided <u>Message Error:</u> Starting date for summer period must be provided.	BLOCKER	Yes
periodEnd (S) --> {C14}	nvarchar(100)	Must be provided <u>Message Error:</u> Ending date for summer period must be provided.	BLOCKER	Yes
periodStart (W) --> {C16}	nvarchar(100)	Must be provided <u>Message Error:</u> Starting date for winter period must be provided.	BLOCKER	Yes
periodEnd (W) --> {C17}	nvarchar(100)	Must be provided <u>Message Error:</u> Ending date for winter period must be provided.	BLOCKER	Yes
hasVapourPressure --> {D20}	nvarchar(3) <i>Code lists:</i> (YesNo)	Mus be provided (Yes / No) <u>Message Error:</u> Has Vapour pressure must be value Yes or No.	BLOCKER	Yes
noteVapourPressure --> {B21}	ntext	If "Yes" in the field "hasVapourPressure" then the	BLOCKER	Yes: if "Yes" in

		field "noteVapourPressure" must be filled. <u>Message Error:</u> Details about vapour pressure waiver must be provided		"hasVapour Pressure"
countrySize -- > {C24}	mvarchar(1) <i>Code list:</i> (CountrySize)	Must be provided <u>Message Error:</u> Country size Large / Small must be provided.	BLOCKER	Yes
addInformation -- > {B37}	ntext	Must be provided <u>Message Error:</u> Additional information must be provided.	BLOCKER	Yes
samplingNotes -- > {Detailed FQMS/B28}	ntext	Must be provided <u>Message Error:</u> Information on sampling must be provided.	BLOCKER	Yes
fqmsAdminNotes -- > {Detailed FQMS/B42}	ntext	Must be provided <u>Message Error:</u> Information on FQMS administration must be provided.	BLOCKER	Yes
natLegislationNotes -- > {Detailed FQMS/B49}	ntext	Must be provided <u>Message Error:</u> Information on National Legislation must be provided.	BLOCKER	Yes
reportPeriodsNotes --> {Detailed FQMS/B58}	ntext	Must be provided <u>Message Error:</u> Information on reporting periods must be provided.	BLOCKER	Yes
FQMSID --> {B28:B31}	nvarchar(100) <i>Code list</i> (FQMSType)			
yesNo --> {C28:C31}	nvarchar(3) <i>It is the code list</i> (YesNo)	Must be provided <u>Message Error:</u> Must be indicated whether the monitoring system is set up using the European Standard EN 14274:2003 statistical model A, B or C.	BLOCKER	Yes At least, there must be a value "Yes" in the column.

smallCountry --> {D28:D31}	nvarchar(10)			
largeCountry --> {E28:E31}	nvarchar(10)			

2.2.1 XML

```

<FQMS>
  <Summer>
    <periodStart>C13</periodStart>
    <periodEnd>C14</periodEnd>
  </Summer>
  <Winter>
    <periodStart>C16</periodStart>
    <periodEnd>C17</periodEnd>
  </Winter>
  <hasVapourPressure>D20 <-- code lists YesNo --></hasVapourPressure>
  <noteVapourPressure>B21</noteVapourPressure>
  <countrySize>C24<!--Code lits countrySize. (L) large – (S) small. A country is classified as Large
if total automotive fuel
sales exceed 15 millions tons per annum. -->
</countrySize>
  <addInformation>B37</addInformation>
  <samplingNotes>'Detailed FQMS'!B28</samplingNotes>
  <fqmsAdminNotes>'Detailed FQMS'!B42</fqmsAdminNotes>
  <natLegislationNotes>'Detailed FQMS'!B49</natLegislationNotes>
  <reportPeriodsNotes>'Detailed FQMS'!B58</reportPeriodsNotes>
  <FQMSModel>
    <fqmsId>B28:B31 <!--table code list FQMSType --></fqmsId>
    <yesNo>C28:C31 <!--table code list YesNo--> </yesNo>
    <smallCountry>D28:D31</smallCountry>
    <largeCountry>E28:E31</largeCountry>
  </FQMSModel>
</FQMS>

```

The following labels are in the sheet "Detailed FQMS":

- samplingNotes
- fqmsAdminNotes
- natLegislationNotes
- reportPeriodsNotes

2.3 Sales – (<Sales>)

Label	Data Type	Validation	Level Error	Mandatory
-------	-----------	------------	-------------	-----------

fuelType	nvarchar(10) <i>Is the code list (FuelType)</i>	Automatic. Is generated by the FME process. (Petrol / Diesel)		Yes
fuelGradeDirective-- > {A10:A25 / A27:A31}	nvarchar(255) <i>Code list: (FuelGradeDir ective)</i>	Can be null or missing. The row can be hidden or deleted by the user if it is not necessary.???		
nameNatFuelGrade-- > {B10:B25 / B27:B31}	nvarchar(255)	If the cell {B\$} is fill with data then the columns {C\$:I\$} of the same row must be filled. This is the cause of blocker .		
biofuelContent-- > {C10:C25 / C27:C31}	decimal(18,2)	Must be provided and must be numerical value Percentage value >=0 <u>Message Error:</u> The biofuel value must be a percentage and >= 0	BLOCKER	Yes
natSales_Litres -- > {D10:D25 / D27:D31}	decimal(18,2)	Must be provided and must be numerical value <u>Message Error:</u> The national Sales litres value must be provided and must be numerical value.	BLOCKER	Yes
natSales_Tonnes -- > {E10:E25 / E27:E31}	decimal(18,2)	Must be provided and must be numerical value <u>Message Error:</u> The national sales tonnes value must be provided and must be numerical value.	BLOCKER	Yes
servStation -- > {F10:F25 / F27:F31}	int	Must be provided and must be a numerical value <u>Message Error:</u> The service station value must be provided and must be a numerical value.	BLOCKER	Yes

<p>terminals -- > {G10:G25 / G27:G31}</p>	<p>int</p>	<p>Must be provided and must be a numerical value</p> <p><u>Message Error:</u></p> <p>The terminals value must be provided and must be a numerical value.</p>	<p>BLOCKER</p>	<p>Yes</p>
<p>refinery -- > {H10:H25 / H27:H31}</p>	<p>int</p>	<p>Must be provided and must be a numerical value</p> <p><u>Message Error:</u></p> <p>The refinery value must be provided and must be a numerical value.</p>	<p>BLOCKER</p>	<p>Yes</p>
<p>locNotAvailable -- > {I10:I25 / I27:I31 }</p>	<p>int</p>	<p>If there is data then must be a numerical value</p> <p><u>Message Error:</u></p> <p>The location not available value must be provided and must be a numerical value.</p>		
<p>totalPetrol --> {J26}</p>	<p>decimal(18,2)</p>	<p>This value has to be equal to the sum of the values in labels {<i>Regional Petrol Sampling!G31 (summer) + Regional Petrol Sampling!G31 (Winter)</i>}</p> <p>(label: <QualityMonitoring> <RegionalSampling> <regionTotalGrade></p> <p>For fueltype = P and period = Summer + winter)</p> <p><u>Message Error:</u></p> <p>The total number of samples in sales is not equal to the total number of samples reported in the Regional Petrol Sampling pages.</p> <p>AND</p> <p>This value has been >= sum of the Petrol with period = full year cell D51 (totalSamplingFrecuency)</p> <p><u>Message Error:</u></p> <p>A total number of samples in sales is not in</p>		

		line with the total number of samples reported in the Petrol sheets.		
totalDiesel --> {J32}	decimal(18,2)	<p>This value has to be equal to the sum of the values in labels <i>{'Regional (FueltypeD) Diesel Sampling'!G31 (Period Summer) + Regional Diesel Sampling'!G31 (Winter)}</i></p> <p>(label: <QualityMonitoring> <RegionalSampling> <regionTotalGrade></p> <p>For fueltype = D and period = Summer + winter)</p> <p><u>Message Error:</u> A total number of samples in sales is not equal to the total number of samples reported in the Regional Diesel Sampling pages.</p> <p>AND</p> <p>This value has been> = sum of the Diesel with period = full year cell D51 (totalSamplingFrecuency)</p> <p><u>Message Error:</u> A total number of samples in sales is not in line with the total number of samples reported in the Diesel sheets.</p>		
noteDirective --> {A37}	ntext	<p>Must be provided</p> <p><u>Message Error:</u> The note directive value must be provided.</p>	BLOCKER	Yes
noteArticle3 --> {A41}	ntext	<p>Must be provided.</p> <p><u>Message Error:</u> The note about article 3 value must be provided.</p>	BLOCKER	Yes
comments --> {A45}	ntext	<p>Must be provided</p> <p><u>Message Error:</u></p>	BLOCKER	Yes

		The comments value must be provided.		
--	--	--------------------------------------	--	--

2.3.1 XML

```

<Sales>
  <ReportingResult>
    <fuelType>Petrol / Diesel<!-- table codelist FuelType--></fuelType>
    < fuelGradeDirective >for Petrol - A10:A25 / for Diesel - A27:A31
    <!--table code list FuelGradeDirective -->
    </ fuelGradeDirective >
    <nameNatFuelGrade>
    fnr Petrol - B10:B25 / for Diesel - B27:B31
    </NameNatFuelGrade>
    <biofuelContent >
    for Petrol - C10:C25 / for Diesel - C27:C31
    </biofuelContent >
    <natSales_Litres>
    for Petrol - D10:D25 / for Diesel - D27:D31
    </natSales_Litres>
    <natSales_Tonnes>
    for Petrol - E10:E25 / for Diesel - E27:E31
    </natSales_Tonnes>
    <servStation>
    for Petrol - F10:F25 / for Diesel - F27:F31
    </servStation>
    <terminals>
    for Petrol - G10:G25 / for Diesel - G27:G31
    </terminals>
    <refinery>
    for Petrol - H10:H25 / for Diesel - H27:H31
    </refinery>
    <locNotavailable>
    for Petrol - I10:I25 / for Diesel - I27:I31
    </locNotavailable>
  </ReportingResult>
  <totalPetrol>J26</totalPetrol>
  <totalDiesel>J32</totalDiesel>
  <noteDirective>A37</noteDirective>
  <noteArticule3>A41</noteArticule3>
  <comments>A45</comments>
</Sales>

```

2.4 Regional Petrol Sampling – (<RegionalSamplings>)

Label Grades: If label "GradeActual" (cell range: H14:N16) is not null or not empty or not missing then the process will fill these labels with the data of the excel file.

The sheets below are mandatory:

- Regional Petrol Sampling / Summer
- Regional Petrol Sampling / Winter
- Regional Diesel Sampling / Summer
- Regional Diesel Sampling / Winter

The node "RegionalSampling" must contain as many grades as fuels grades in sales sheet, taking into account the type (Petro/Diesel) and period (Summer/Winter).

Label	Data Type	Validation	Level Error	Mandatory
fuelType --> {C4}	nvarchar(10) <i>Code list:</i> (FuelType)	Must be provided and must be a numerical value <u>Message Error:</u> The fuel type must be provided and must be a numerical value.	BLOCKER	Yes
statisticalModel --> {C5}	nvarchar(100)	If the counter of the Range of cells {C28:C31} of the sheets FQMS&Sampling has the value "Yes" in more than one column, then this cell must be filled with value "Unknown" If the value "Yes" is = 0 then, at least, the column with the range {C28:C31} must be a value "Yes". If in the range {C28:C31} there is one only "Yes", this cell will be filled with the value of the next cell B\${B28:B31}. <u>Message Error</u> ????	BLOCKER	Yes
period --> {C7}	nvarchar(10) <i>Code list:</i> (Period)	Must be provided (Summer / Winter). <u>Message Error:</u> The Period must be provided.	BLOCKER	Yes

minSamples -- > {C9}	int	<p>Must be provided and must be numerical value</p> <p>IF Regional Petrol (fuelType = P) Sampling (period Summer) Cells(C9)<= Regional Petrol (fuelType = P) Sampling (period Summer) Cells(F31)</p> <p>Regional Diesel (fuelType = D) Sampling(period Summer) Cells(C9)<= Regional Diesel (fuelType = D) Sampling(period Summer) Cells(F31)</p> <p>Cell F31 is the SUMA(F14:F29)</p>	BLOCKER	Yes
addNotes -- > {B39}	ntext	<p>Must be provided</p> <p><u>Message Error:</u></p> <p>The additional notes must be provided.</p>	BLOCKER	Yes
regionName -- > {B14:B29}	nvarchar(255)			
fuelConsump -- > {C14:C29 }	decimal(18,2)	<p>Must be provided and must be a numerical value</p> <p><u>Message Error:</u></p> <p>The Fuel consump must be provided and must be a numerical value.</p> <p>If Regional Petrol (fuelType = P) Sampling period Summer or Winter Cells (C14:C29) filled in, then Regional Petrol Sampling Period Summer or Winter Cells (D14:D29 and H13:N29) have to be filled in respectively and must be a numerical value</p> <p>If Regional Diesel (fuelType = D) Sampling period Summer or Winter Cells (C14:C29) filled in, then Regional Petrol Sampling Period Summer or Winter Cells (D14:D29 and</p>	BLOCKER	Yes

		H13:N29) have to be filled in respectively and must be a numerical value		
varFactor -- > {D14:D29}	decimal(18,2)	<p>If {C14:C29} fill in, then must be provided and must be numerical value</p> <p><u>Message Error:</u></p> <p>The variability factor value for the Regional {FuelType Petrol / Diesel} Sampling period {Period Summer / Winter} must be provided and must be numerical value.</p>	BLOCKER	
proportion -- > {E14:E29}	decimal(18,2)	<p>If {C14:C29} fill in, then must be provided and must be numerical value</p> <p><u>Message Error:</u></p> <p>The proportion value for the Regional {FuelType Petrol / Diesel} Sampling period {Period Summer / Winter} must be provided and must be numerical value.</p>	BLOCKER	
minNumberByGrade -- > {F14:F29}	decimal(18,2)	<p>If {C14:C29} fill in, then must be provided and must be numerical value</p> <p><u>Message Error:</u></p> <p>The minimum number samples per grade for the Regional {FuelType Petrol / Diesel} Sampling period {Period Summer / Winter} must be provided and must be numerical value.</p>	BLOCKER	
gradeID --> {H13:N13}	nvarchar(100)	If gradeActual has value in the column {H14:H29} then is MANDATORY and BLOCKER		
gradeName -- > {G14:G29}	nvarchar(255)	If has value the row {H\$:N\$} the is MANDATORY and BLOCKER		
gradeActual -- > {H14:N29}	int	<p>If {C14:C29} fill in, then must be provided and must be numerical value</p> <p><u>Message Error:</u></p> <p>The grade actual number of samples for the Regional {FuelType Petrol / Diesel}</p>	BLOCKER	

		Sampling period {Period Summer / Winter} must be provided and must be numerical value.		
--	--	--	--	--

2.4.1 XML

```

<RegionalSamplings>
  <RegionalSampling> <!-- 4 -->
    <fuelType> C4 <!-- table codelist FuelType--> </fuelType>
    <statisticalModel> C5
      <!-- Definitions according to those provided in EN 14274:2003. -->
    </statisticalModel>
    <Period> C7 <!-- Summer or Winter table for codelist Period --> </Period>
    <minSamples> C9
      <!-- or grades comprising <10% total sales, the minimum is calculated as: %sales x min.
      for parent grade (at least 1 sample) -->
    </minSamples>
    <addNotes> B39
      <!-- (e.g. identification of grades comprising <10% total sales) -->
    </addNotes>
    <Regions>
      <Region> <!-- 1 to n-->
        <regionName> B14:B29
          <!-- Macro / Non-Macro Regions (add extra rows as needed) -->
        </regionName>
        <fuelConsump> C14:C29 <!-- In tonnes --> </fuelConsump>
        <varFactor> D14:D29
          <!-- Only for statistical Model A-->
        </varFactor>
        <proportion> E14:E29 </proportion>
        <minNumberByGrade> F14:F29 </minNumberByGrade>
        <gradeID> H13:N13 </gradeID>
        <Grades> <!-- 1 to 7-->
          <gradeName> G14:G29 </gradeName>
          <gradeActual> H14:N29 <!-- Number --> </gradeActual>
        </Grades>
      </Region>
    <regionTotalGrade> </regionTotalGrade>
  </Regions>
</RegionalSampling>
</RegionalSamplings>

```

2.5 Petrol – (<Petrols>)

If the range {C17:G40} is not null or not empty or not missing the process will create the xml with the data of the excel file.

All validations must be executed if in the range {C17:G40} there are some data.

Label testAnalisy: If the range {C62:L123} is not null or not empty or not missing the process will be filled this label with the data of the excel file.

All validations must be executed if in the range {C62:L123} there is some data.

This node depends on how many grades are contained in the correspondent Regional Sampling Petrol sheet (mandatory).

Label	Data Type	Validation	Level Error	Mandatory
period --> {B5}	nvarchar(10) <i>Code list:</i> (Period)	<u>Message Error:</u> The period for the fuel grade XXXX must be provided.	BLOCKER	Yes
fuelGrade --> {B6}	nvarchar(255)	This is a code list.		
bioethMax--> {B9}	decimal(4,2)	Must be provided and must be a numerical value <u>Message Error:</u> The maximum bioethanol content for the fuel grade XXXX must be provided and numerical value.	BLOCKER	Yes
natFuelGrade--> {B7}	nvarchar(100)	Must be provided <u>Message Error:</u> The National fuel Grade for fuel grade XXX must be provided.	BLOCKER	Yes
summerPeriod--> {C8}	nvarchar(150)	If this value is not in Excel file the FME process will fill it depending on the value of the cell B8. If the Cell C8 is empty or null or missing this value will be empty. If B8="A" then the value is "1st June to 31st August (arctic)" Else the value is "1st May to 30th September (normal)"	BLOCKER	Yes

summerPeriodNA --> {B8}	nvarchar(20)	Must be provided <u>Message Error:</u> The summer period for the fuel grade XXXX must be provided.	BLOCKER	Yes
parameter--> {A17:A40}	nvarchar(255) <i>Code list</i> (NatfuelGrade)	This is a code list.		
unit --> {B17:B40}	nvarchar(50)	This is a code list.		
n --> {C17:C40}	decimal(18,2)	If there is data then must be numerical value <u>Message Error:</u> The number of samples for the fuel grade XXXX and [parameter XXX] must be numerical value. Petrols (X) Cells(C17:C40) <= Cell(D51) <u>Message Error:</u> A number of samples measured for the fuel grade XXXX and [parameter XXX] must be smaller or equal to the total number of samples reported for this national fuel grade.	BLOCKER	
min --> {D17:D40}	decimal(18,2)	If there is data then must be numerical value <u>Message Error:</u> The minimum sample value for the fuel grade XXXX and [parameter XXX] must be numerical value. Petrol (X) Cells(D17:D40) < Cells(E17:E40) <u>Message Error:</u> The minimum sample value for the fuel grade XXXX and [parameter XXX] must be smaller than the maximum value.	BLOCKER	
max --> {E17:E40}	decimal(18,2)	If there is data then must be numerical value <u>Message Error:</u>	BLOCKER	

		The maximum sample value for the fuel grade XXXX and [parameter XXX] must be numerical value.		
med --> {F17:F40}	decimal(18,2)	<p>If there is data then must be numerical value</p> <p><u>Message Error:</u> The medium sample value for the fuel grade XXX and [parameter XXX] must be numerical value.</p> <p>Petrol (X) Cells(F17:F40) < Cells (D17:D40,E17:E40)</p> <p><u>Message Error:</u> Median value for the fuel grade XXXX and [parameter XXX] has to be within the minimum-maximum limits</p>	BLOCKER	
me --> {G17:G40}	decimal(18,2)	<p>If there is data then must be numerical value</p> <p><u>Message Error:</u> The mean sample value for the fuel grade XXX and [parameter XXX] must be numerical value.</p> <p>Petrol (X) Cells(G17:G40) < Cells (D17:D40,E17:E40)</p> <p><u>Message Error:</u> The mean sample value for the fuel grade XXXX and [parameter XXX] must be within the minimum - maximum limits.</p>	BLOCKER	
sd --> {H17:H40}	decimal(18,2)	<p>If there is data then must be numerical value</p> <p><u>Message Error:</u> The standard deviation value for the fuel grade XXX and [parameter XXX] must be numerical value.</p>	BLOCKER	
os95 --> {I17:I40}	decimal(18,2)	<p>If there is data then must be numerical value</p> <p><u>Message Error:</u> The number samples outside 95% tolerance limit for the fuel grade XXX and [parameter XXX] must be numerical value.</p> <p>Petrol(X) Cells(I17:I40) <= Petrol(X) Cells(C17:C40)</p>	BLOCEKER	

		<p><u>Message Error:</u> The number of Samples outside 95% TL for the fuel grade XXXX and [parameter XXX] must be equal or greater than total number of samples.</p>		
s25 --> {J17:J40}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u> The 25% of the sample for the fuel grade XXX and [parameter XXX] must be a numerical value.</p> <p>Petrol(X) Cells(D17:D40) < Petrol(X) Cells(J17:J40) <= Petrol(X) Cells(E17:E40)</p> <p><u>Message Error:</u> The 25% of sample value for the fuel grade XXXX and [parameter XXX] has to be within the minimum - maximum limits</p>	BLOCKER	
s75 --> {K17:K40}	decimal(18,2)	<p>If there is data then must be numerical value</p> <p><u>Message Error:</u> The 75% of sample for the fuel grade XXX and [parameter XXX] must be numerical value.</p> <p>Petrol(X) Cells(D17:D40) < Petrol(X) Cells(K17:K40) <= Petrol(X) Cells(E17:E40)</p> <p><u>Message Error:</u> The 75% of sample value for the fuel grade XXX and [parameter XXX] has to be within the minimum - maximum limits</p>	BLOCKER	
nsMin --> {L17:L40}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u> The National specification minimum value for the fuel grade XXX and [parameter XXX] must be a numerical value.</p>	BLOCKER	
nsMax --> {M17:M40}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u> The national specification maximum value for the fuel grade XXX and [parameter XXX] must be a numerical value.</p>		

adMin --> {N17:N40}	nvarchar(100)			
adMax --> {O17:O40}	nvarchar(100)			
method --> {P17:P40}	nvarchar(255)			
year--> {Q17:Q40}	int(4)	<p>If there is data then must be numerical value. Is the Year. <u>Message Error:</u> The test method date value for the fuel grade XXX and [parameter XXX] must be a numerical value. Format: YYYY.</p> <p><i>In the schema will be formatted like "gYear" (YYYY).</i></p>		
month --> {A45:A50 & C45:C50}	nvarchar(10) <i>Code list (Month)</i>			
samplesNumber --> {B45:B50 & D45:D50}	int	<p>If there is data then must be a numerical value <u>Message Error:</u> The number of sample for the fuel grade XXX must be a numerical value.</p> <p>The sum of all SamplesNumber for the fuel grade must be > 0 <u>Message Error:</u> The number of sample for the fuel grade XXX has to be greater than zero.</p>	BLOCKER	
totalSamplingFrecuency --> {D51}	int			
(TestAnalisys) parameter --> {A62:A123}	nvarchar(3) <i>Code list (TestAnalisys)</i>			
(TestAnalisys) unit--> {B62:B123}	nvarchar(100)			
(TestAnalisys) method--> {C62:C123}	nvarchar(255)			
year--> {D62:D123}	int(4) Format Year: YYYY	<p>If there is data then must be a numerical value. <u>Message Error:</u></p>	BLOCKER	

		The test analysis date value for the fuel grade XXX and [parameter XXX] must be a numerical value. Format: YYYY. <i>In the schema will be formatted like "gYear" (YYYY).</i>		
reproducibility --> {E62:E123}	decimal(18,2)	If there is data then must be numerical value. <u>Message Error:</u> The test analysis reproducibility value for the fuel grade XXX and [parameter XXX] must be a numerical value.	BLOCKER	
toleranceMin --> {F62:F123}	decimal(18,2)	If there is data then must be numerical value. <u>Message Error:</u> The test analysis tolerance minimum value for the fuel grade XXX and [parameter XXX] must be a numerical value.	BLOCKER	
toleranceMax --> {G62:G123}	decimal(18,2)	If there is data then must be numerical value. <u>Message Error:</u> The test analysis tolerance maximum value for the fuel grade XXX and [parameter XXX] must be a numerical value.	BLOCKER	
exceeded --> {H62:H123}	nvarchar(3)	Depending of the range of cells: D17:D40 ???		
howMuch --> {I62:I123}	int	Message Error: ????		
sampleLocation --> {J62:J123}	nvarchar(255)			
values --> {K62:K123}	nvarchar(255)			
details --> {L62:L123}	ntext			
otherNotes --> {A54}	ntext			

2.5.1 XML

<Petrols>

<Petrol><-- 1 to n -->

<period>**B5**

<!--Summer, Winter or full year table for code list Period -->

```

</period>
<fuelGrade>B6</fuelGrade>
<bioethMax>B9</bioethMax>
<natFuelGrade>B7</natFuelGrade>
<summerPeriod>B8
<!-- (N) or (A) N = 1st May to 30th September (normal) A = 1st June to 31st August
(arctic). Nothing or other same than option A -->
</summerPeriod>
<summerPeriodNA> </summerPeriodNA>
<PetrolReportingResult>
  <parameter>A17:A40
    <!-- table codelist NatFuelGrade with FuelTypeid = P -->
  </parameter>
  <unit>B17:B40</unit>
  <n> C17:C40</n>
  <min> D17:D40</min>
  <max> E17:E40</max>
  <med>F17:F40</med>
  <me> G17:G40</me>
  <sd> H17:H40</sd>
  <os95> I17:I40</os95>
  <s25> J17:J40</s25>
  <s75> K17:K40</s75>
  <nsMin> L17:L40</nsMin>
  <nsMax> M17:M40</nsMax>
  <adMin> N17:N40</adMin>
  <adMax> O17:O40</adMax>
  <method> P17:P40</method>
  <year> Q17:Q40<!--Year--> </year>
</PetrolReportingResult>
<SamplingFrequency> <!--1 to n -->
  <month>A45:A50 & C45:C50 <!--table code list Month--> </month>
  <samplesNumber> B45:B50 & D45:D50</samplesNumber>
</SamplingFrequency>
<totalSamplingFrequency> D51 </totalSamplingFrequency>
<TestAnalysys> <!--1 to n -->
  <parameter>A62:A123
    <!--table codelist TestAnalysys with FuelTypeid = D -->
  </parameter>
  <unit>B62:B123</unit>
  <method> C62:C123</method>
  <year> D62:D123 <!--Year--> </year>
  <reproducability> E62:E123</reproducability>
  <toleranceMin> F62:F123</toleranceMin>
  <toleranceMax> G62:G123</toleranceMax>
  <exceeded> H62:H123</exceeded>
  <howMuch> I62:I123</howMuch>
  <sampleLocation> J62:J123</sampleLocation>
  <values> K62:K123</values>
  <details> L62:L123</details>
</TestAnalysys>
<otherNotes>A54</otherNotes>
</Petrol>
</Petrols>

```

2.6 Types of diesel – (<Diesels>)

If the range C14:G20 is not null or not empty or not missing the process will generate the xml with the data of these sheets.

All validations must be executed if in the range {C14:G20} there are some data.

Label testAnalisy: If the range {C42:L51} is not null or not empty or not missing the process will be filled this label with the data of the excel file.

All validations must be executed if in the range {C42:G51} there are some data.

This node depends on how many grades are contained in the correspondent Regional Sampling Diesel sheet (mandatory).

Label	Data Type	Validation	Level Error	Mandatory
period --> {B5}	nvarchar(10) <i>Code list:</i> (Period)	Must be provided <u>Message Error:</u> The period for the fuel grade XXXX must be provided.	BLOCKER	Yes
fuelGrade --> {B6}	nvarchar(255)	This is a code list.		
fameMax --> {B8}	Decimal(4,2)	Must be provided and must be numerical value <u>Message Error:</u> The maximum FAME content for the fuel grade XXXX must be provided and numerical value.	BLOCKER	Yes
natFuelGrade--> {B7}	nvarchar(100)	<u>Message Error:</u> The National fuel Grade for fuel grade XXX must be provided.	BLOCKER	Yes
parameter--> {A14:A20}	nvarchar(255) <i>Code list</i> (NatFuelGrade)	This is a code list.		
unit --> {B14:B20}	nvarchar(50)	This is a code list.		
n --> {C14:C20}	decimal(18,2)	If there is data then must be numerical value <u>Message Error:</u>	BLOCKER	

		<p>The number of samples for the fuel grade XXXX and [parameter XXX] must be numerical value.</p> <p>Diesels (X) Cells(C14:C20) <= Cell(D31)</p> <p><u>Message Error:</u></p> <p>A number of samples measured for the fuel grade XXXX and [parameter XXX] must be smaller or equal to the total number of samples reported for this national fuel grade.</p>		
min --> {D14:D20}	decimal(18,2)	<p>If there is data then must be numerical value</p> <p><u>Message Error:</u></p> <p>The minimum value for the fuel grade XXXX and [parameter XXX] must be numerical value.</p> <p>Diesel (X) Cells(D14:D20) < Cells(E14:E20)</p> <p><u>Message Error:</u></p> <p>The minimum sample value for the fuel grade XXXX and [parameter XXX] must be smaller than the maximum value.</p>	BLOCKER	
max --> {E14:E20}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The maximum sample value for the fuel grade XXXX and [parameter XXX] must be a numerical value.</p>	BLOCKER	
med --> {F14:F20}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The medium sample value for the fuel grade XXX and [parameter XXX] must be a numerical value.</p> <p>Diesel (X) Cells(F14:F20) < Cells (D14:D20,E14:E20)</p> <p><u>Message Error:</u></p> <p>Median value for the fuel grade XXXX and [parameter XXX] has to be within the minimum-maximum limits</p>	BLOCKER	
me --> {G14:G20}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p>	BLOCKER	

		<p>The mean sample value for the fuel grade XXXX and [parameter XXX] must be a numerical value.</p> <p>Diesel (X) Cells(G14:G20) < Cells (D14:D20,E14:E20)</p> <p><u>Message Error:</u></p> <p>The mean sample value for the fuel grade XXXX and [parameter XXX] must be within the minimum - maximum limits.</p>		
sd --> {H14:H20}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The standard deviation value for the fuel grade XXX and [parameter XXX] must be a numerical value.</p>	BLOCKER	
os95 --> {I14:I20}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The number samples outside 95% tolerance limit for the fuel grade XXX and [parameter XXX] must be a numerical value.</p> <p>Diesel(X) Cells(I14:I20) <= Diesel(X) Cells(C14:C20)</p> <p><u>Message Error:</u></p> <p>The number of Samples outside 95% TL for the fuel grade XXXX and [parameter XXX] must be equal or greater than total number of samples.</p>	BLOCKER	
s25 --> {J14:J20}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The 25% of the sample for the fuel grade XXX and [parameter XXX] must be a numerical value.</p> <p>Diesel(X) Cells(D14:D20) < Diesel(X) Cells(J14:J20) <= Diesel(X) Cells(E14:E20)</p> <p><u>Message Error:</u></p> <p>The 25% of sample value for the fuel grade XXXX and [parameter XXX] has to be within the minimum - maximum limits</p>	BLOCKER	
s75 --> {K14:K20}	decimal(18,2)	<p>If there is data then must be numerical value.</p>	BLOCKER	

		<p><u>Message Error:</u> The 75% of the sample for the fuel grade XXX and [parameter XXX] must be a numerical value.</p> <p>Diesel(X) Cells(D14:D20) < Diesel(X) Cells(K14:K20) <= Diesel(X) Cells(E14:E20)</p> <p><u>Message Error:</u> The 75% of sample for the fuel grade XXXX and [parameter XXX] value has to be within the minimum - maximum limits</p>		
nsMin --> {L14:L20}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u> The National specification minimum value for the fuel grade XXX must be a numerical value.</p>		
nsMax --> {M14:M20}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u> The national specification maximum value for the fuel grade XXX and [parameter XXX] must be a numerical value.</p>		
adMin --> {N14:N20}	nvarchar(100)			
adMax --> {O14:O20}	nvarchar(100)			
method --> {P14:P20}	nvarchar(255)			
year--> {Q14:Q20}	int(4)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u> The test method date value for the fuel grade XXX and [parameter XXX] must be numerical value Format: YYYY.</p> <p><i>In the schema will be formatted like "gYear" (YYYY).</i></p>		
(SamplingFrequency) month --> {A25:A30 & C25:C30}	nvarchar(10) <i>Code list</i> (Month)			
(SamplingFrequency) samplesNumber --> {B25:B30 & D25:D30}	int	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p>	BLOCKER	

		<p>The number of sample for the fuel grade XXX must be a numerical value.</p> <p>The sum of all SamplesNumber for the fuel grade must be > 0</p> <p><u>Message Error:</u></p> <p>The number of the sample has to be greater than zero.</p>		
totalSamplingFrecuency -> {D31}	int			
(TestAnalisy) parameter --> {A42:A51}	nvarchar(3) Code list (TestAnalisy)			
(TestAnalisy) unit--> {B42:B51}	nvarchar(50)			
(TestAnalisy) method--> {C42:C51}	nvarchar(255)			
year --> {D42:D51}	int(4)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The test analysis date value for the fuel grade XXX and [parameter XXX] must be a numerical value. Format: YYYY.</p> <p><i>In the schema will be formatted like "gYear" (YYYY).</i></p>		
reproducibility --> {E42:E51}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The test analysis reproducibility value for the fuel grade XXX and [parameter XXX] must be a numerical value.</p>		
toleranceMin --> {F42:F51}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The test analysis tolerance minimum value for the fuel grade XXX and [parameter XXX] must be a numerical value.</p>		
toleranceMax --> {G42:G51}	decimal(18,2)	<p>If there is data then must be numerical value.</p> <p><u>Message Error:</u></p> <p>The test analysis tolerance maximum value for the fuel grade XXX and [parameter XXX] must be a numerical value.</p>		
exceeded --> {H42:H51}	nvarchar(3)	<p>Depending on the range of cells: D17:D40</p>		

		?????		
howMuch --> {I42:I51}	int????	If there is data then must be a numerical value. <u>Message Error:</u> ?????		
sampleLocation --> {J42:J51}	nvarchar(255)			
values --> {K42:K51}	nvarchar(255)			
details --> {L42:L51}	ntext			
otherNotes --> {A34}	ntext			

2.6.1 XML

```

<Diesels>
  <Diesel><!-- 1 to n -->
    <period>B5
    <!--Summer, Winter or full year table for codelist Period -->
    </period>
    <fuelGrade>B6</fuelGrade>
    <natFuelGrade>B7</natFuelGrade>
    <fameMax>B8</fameMax>
    <DieselReportingResult><!-- 1 to n -->
      <parameter>A14:A20
      <!-- table codelist NatFuelGrade with FuelTypeid = D -->
      </parameter>
      <unit> B14:B20 </unit>
      <n> C14:C20 </n>
      <min> D14:D20 </min>
      <max> E14:E20 </max>
      <med> F14:F20 </med>
      <me> G14:G20 </me>
      <sd> H14:H20 </sd>
      <os95> I14:I20 </os95>
      <s25> J14:J20 </s25>
      <s75> K14:K20 </s75>
      <nsMin> L14:L20</nsMin>
      <nsMax> M14:M20</nsMax>
      <adMin> N14:N20</adMin>
      <adMax> O14:O20</adMax>
      <method> P14:P20</method>
      <year> Q14:Q20<!--Year--></year>
    </DieselReportingResult>
  <SamplingFrequency><!-- 1 to n -->
    <month>A25:A30 & C25:C30 <!--table code list Month--></month>
    <samplesNumber> D25:D30 & D25:D30</samplesNumber>
  </SamplingFrequency>
  <totalSamplingFrecuency> D31 </totalSamplingFrequency>
  <TestAnalisis><!--1 to n -->

```

```

<parameter> A42:A51
<!--table codelist TestAnalisys with FuelTypeid = D -->
</parameter>
<unit> B42:B51</unit>
<method> C42:C51</method>
<year> D42:D51 <!--Year--> </year>
<reproducability> E42:E51</reproducability>
<toleranceMin> F42:F51</toleranceMin>
<toleranceMax> G42:G51</toleranceMax>
<exceeded> H42:H51</exceeded>
<howMuch> I42:I51</howMuch>
<sampleLocation> J42:J51</sampleLocation>
<values> K42:K51</values>
<details> L42:L51</details>
</TestAnalisys>
<otherNotes>A34</otherNotes>
</Diesel>
</Diesels>

```

3 Code list

3.1 FuelType

3.1.1 Schema

Field	Type	Description	Required
FuelTypeID	nvarchar(5)	PK	Yes
FuelType	nvarchar(50)	Petrol / Diesel	Yes

3.1.2 Values

FuelType	
FuelType	FuelTypeID
Diesel	D
Petrol	P

This code list is used in:

- Sheet: Regional Petrol Sampling
 - Cell: C4
- Sheet: Sales (depending of the row)

3.2 FQMSType

3.2.1 Schema

Field	Type	Description	Required
FQMSID	Nvarchar(50)	PK	Yes
FQMSType	nvarchar(50)	Petrol / Diesel	Yes

3.2.2 Values

FQMSType	
FQMSType	FQMSID
A: EN14274 Statistical Model A	A
B: EN14274 Statistical Model B	B
C: EN14274 Statistical Model C	C
National System	NS

This code list is used in:

- Sheet: FQMS&Sampling
 - Range of cells: B27:B31

3.3 Period

3.3.1 Schema

Field	Type	Description	Required
-------	------	-------------	----------

PeriodID	nvarchar(5)	PK	Yes
Period	nvarchar(50)	Full-year / Summer / Winter	Yes

3.3.2 Values

Periods	
Period	PeriodID
Full Year	FY
Summer	S
Winter	W

This code list is used in:

- Sheet: Petrol
 - Cell: B5
- Sheet: Diesel
 - Cell: B5

3.4 CountrySize

3.4.1 Schema

Field	Type	Description	Required
SizeCatID	nvarchar(5)	PK	Yes
SizeCat	nvarchar(50)	Large / Small	Yes
Description	Nvarchar(100)	Description	Yes

3.4.2 Values

Country Size		
SizeCat	Description	SizeCatID
Large	P&D sales >15 million tonnes	L
Small	P&D sales =<15 million tonnes	S

This code list is used in:

- Sheet: FQMS&Sampling
 - Cell: C24

3.5 NatFuelGrade

3.5.1 Schema

Field	Type	Description	Required
ParameterID	nvarchar(5)	PK	
Parameter	nvarchar(100)	Name of the parameter	Yes
Unit	nvarchar(50)	Large / Small	Yes
FuelTypeID	nvarchar(1)	(D) Diesel / (P) Petrol	Yes

3.5.2 Values

NatFuelGrade			
ParameterID	Parameter	Unit	FuelTypeID
Cet	Cetane number	--	D
Dens	Density at 15 °C ⁽²⁾	kg/m ³	D
Dist	Distillation -- 95%-Point	°C	D
PAH	Polycyclic aromatic hydrocarbons (PAH) ⁽³⁾	% (m/m)	D
S	Sulphur content	mg/kg	D
FAME	FAME Content	% v/v	D
Mang	Manganese ⁽⁵⁾	mg/l	D
Ro	Research Octane Number	--	P
Mo	Motor Octane Number	--	P
Vp	Vapour Pressure, DVPE ⁽⁶⁾ -- required for summer period only	kPa	P
D100	Distillation - evaporated at 100 °C	% V/V	P
D150	Distillation - evaporated at 150 °C	% V/V	P

HCole	Hydrocarbon analysis - Olefins	% V/V	P
HCaro	Hydrocarbon analysis Aromatics	% V/V	P
HCben	Hydrocarbon analysis - Benzene	% V/V	P
O2	Oxygen content	% (m/m)	P
O2Eth	Oxygen content* *petrol with 5% (v/v) or less ethanol content	% (m/m)	P
Meth	Oxygenates - Methanol	% V/V	P
IsoP	Oxygenates - Iso-propyl alcohol	% V/V	P
Eth	Oxygenates - Ethanol	% V/V	P
Tert	Oxygenates - Tert-butyl alcohol	% V/V	P
IsoB	Oxygenates - Iso-butyl alcohol	% V/V	P
Ethers	Oxygenates - Ethers with =5 carbon atoms / molecule	% V/V	P
Other	Oxygenates - other oxygenates	% V/V	P
Sc	Sulphur content	mg/kg	P
Lc	Lead content	g/l	P
Man	Manganese	mg/l	P

This code list is used in:

- Sheet: Petrol
 - Range of cells: A17:A40
- Sheet: Diesel
 - Range of cells: A14:A20

3.6 Month

3.6.1 Schema

Field	Type	Description	Required
MonthId	Int	PK	
Month	nvarchar(10)	Month	Yes

3.6.2 Values

Month	
MonthId	Month
1	January
2	February

Month	
MonthId	Month
3	March
4	April
5	May
6	June
7	July
8	August
9	September
10	October
11	November
12	December

This code list is used in:

- Sheet: Sales
 - Range of cells: A25:A30 & C25:C30

3.7 FuelGradeDirective

3.7.1 Schema

Field	Type	Description	Required
ParameterID	nvarchar(5)	PK	
Parameter	nvarchar(100)	Name of the parameter	Yes
FuelTypeID	nvarchar(1)	(D) Diesel / (P) Petrol	Yes

3.7.2 Values

FuelGradeDirective		
ParameterID	Parameter	FuelTypeID
1	Regular unleaded petrol (minimum RON = 91)1	P
2	Regular unleaded petrol (minimum RON = 91) E52	P
3	Regular unleaded petrol (minimum RON = 91) E102	P
4	Regular unleaded petrol (minimum RON = 91) E+2	P
5	Unleaded petrol (minimum RON = 95)1	P
6	Unleaded petrol (minimum RON = 95) E52	P

FuelGradeDirective		
ParameterID	Parameter	FuelTypeID
7	Unleaded petrol (minimum RON = 95) E102	P
8	Unleaded petrol (minimum RON = 95) E+2	P
9	Unleaded petrol (minimum 95 =< RON < 98)1	P
10	Unleaded petrol (minimum 95 =< RON < 98) E52	P
11	Unleaded petrol (minimum 95 =< RON < 98) E102	P
12	Unleaded petrol (minimum 95 =< RON < 98) E+2	P
13	Unleaded petrol (minimum RON >= 98)1	P
14	Unleaded petrol (minimum RON >= 98) E52	P
15	Unleaded petrol (minimum RON >= 98) E102	P
16	Unleaded petrol (minimum RON >= 98) E+2	P
17	Diesel fuel B53	D
18	Diesel fuel B73	D
19	Diesel fuel B+4 (>7% FAME <=30%)	D
20	Diesel fuel B+4 (FAME >30%)	D

This code list is used in:

- Sheet: Sales
 - Range of cells for petrol: A11:A25
 - Range of cells for diesel: A27:A31

3.8 CountrybyPeriod

3.8.1 Schema

Field	Type	Description	Required
Order	int	PK	
Country	nvarchar(50)	Name of the country	Yes
CountryCode	nvarchar(3)	Country ID	Yes
Period	nvarchar(100)		yes
PeriodCode	nvachar(1)	Period id	Yes

3.8.2 Values

CountryByPeriod				
Order	Country	Countrycode	Period	PeriodCode
1	Austria	A	1st May to 30th September	N
2	Belgium	B	1st May to 30th September	N
3	Denmark	DK	1st June to 31st August	A
4	Finland	FIN	1st June to 31st August	A
5	France	F	1st May to 30th September	N
6	Germany	D	1st May to 30th September	N
7	Greece	GR	1st May to 30th September	N
8	Ireland	IRE	1st June to 31st August	A
9	Italy	I	1st May to 30th September	N
10	Luxembourg	L	1st May to 30th September	N
11	Netherlands	NL	1st May to 30th September	N
12	Portugal	P	1st May to 30th September	N
13	Spain	E	1st May to 30th September	N
14	Sweden	S	1st June to 31st August	A
15	UK	UK	1st June to 31st August	A
16	Cyprus	CY	1st May to 30th September	N
17	Czech Republic	CZ	1st May to 30th September	N
18	Estonia	EE	1st May to 30th September	N
19	Hungary	HU	1st May to 30th September	N
20	Latvia	LV	1st June to 31st August	A
21	Lithuania	LT	1st May to 30th September	N
22	Malta	MT	1st May to 30th September	N
23	Poland	PL	1st May to 30th September	N
24	Slovakia	SK	1st May to 30th September	N
25	Slovenia	SI	1st May to 30th September	N
26	Bulgaria	BU	1st May to 30th September	N
27	Romania	RO	1st May to 30th September	N

I do not know where it is used?????.

3.9 TestAnalysis

3.9.1 Schema

Field	Type	Description	Required
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parameter	nvarchar(255)		
unit	nvarchar(50)		
method	nvarchar(255)		
date	nvarchar(4)		
reproducibility	decimal(18,2)		
toleranceMin	decimal(18,2)		
toleranceMax	decimal(18,2)		

3.9.2 Values

TestAnalysys										
Order	Parameter	Unit	LMax	Lmin	Method	Date	Reproducibility	tolerance Min	toleranceMax	Fueltype
1	Research Octane Number (RON)		95		EN-ISO 5164	2005	0,7	94,6		P
2	(RON 91 fuel only)		91		EN-ISO 5164	2005	0,7	90,6		P
3	Motor Octane Number (MON)		85		EN-ISO 5163	2005	0,9	84,5		P
4	(RON 91 fuel only)		81		EN-ISO 5163	2005	0,9	80,5		P
5	summer period (normal)	kPa		60,0	EN 13016-1	2007	2,2		61,3	P
6	Petrol with bioethanol content 0-2	kPa		66,0	EN 1601	1997	2,3		67,3	P
7	Petrol with bioethanol content 2-4	kPa		67,8	EN 1601	1997	2,3		69,2	P
8	Petrol with bioethanol content 4-6	kPa		68,0	EN 1601	1997	2,3		69,4	P
9	Petrol with bioethanol content 6-8	kPa		67,9	EN 1601	1997	2,3		69,2	P
10	Petrol with bioethanol content 8-10	kPa		67,8	EN 1601	1997	2,3		69,1	P
11	summer period (arctic or severe weather conditions)	kPa		70	EN 13016-1	2007	2,3		71,4	P
12	evaporated at 100 oC	% V/V	46		EN-ISO 3405	2000	4,0	43,6		P
13	evaporated at 150 oC	% V/V	75		EN-ISO 3405	2000	4,0	72,6		P
14	Olefins	% V/V		18,0	EN 15553	2007	6,4		21,8	P
15	Olefins				EN-ISO 22854	2008	2,6		19,5	P
16	without oxygenates				EN 15553	2007	-		-	P
17	without oxygenates				EN-ISO 22854	2008	-		-	P
18	Olefins (RON 91 fuel only)***	% V/V		21,0	ASTM D1319	95a	5,1		24,0	P
19	Aromatics (from 2005)			35,0	EN-ISO 22854	2008	1,7		36,0	P
20	Benzene	% V/V		1,0	EN 12177	1998	0,10		1,06	P

TestAnalysis										
Order	Parameter	Unit	LMax	Lmin	Method	Date	Reproducibility	tolerance Min	tolerance Max	Fueltype
21	Benzene				EN 238	1996	0,17		1,10	P
22	Benzene				EN-ISO 22854	2008	0,05		1,03	P
23	Oxygen content	% (m/m)		3,7	EN 1601	1997	0,41		3,9	P
24	Oxygen content	% V/V		2,7	EN 1601	1997	0,41		2,9	P
25	Methanol	% V/V		3	EN 1601	1997	0,3		3,2	P
26	Ethanol	% V/V		10	EN 1601	1997	0,8		10,5	P
27	Iso-propyl alcohol	% V/V		12	EN 1601	1997	0,9		12,5	P
28	Tert-butyl alcohol	% V/V		15	EN 1601	1997	1		15,6	P
29	Iso-butyl alcohol	% V/V		15	EN 1601	1997	1		15,6	P
30	Ethers with 5 or more carbon atoms per molecule	% V/V		22	EN 1601	1997	1		22,6	P
31	other oxygenates	% V/V		15	EN 1601	1997	1		15,6	P
32	Oxygen content	% (m/m)		3,7	EN 13132	2000	0,3		3,9	P
33	Oxygen content	% V/V		2,7	EN 13132	2000	0,3		2,9	P
34	Methanol	% V/V		3	EN 13132	2000	0,3		3,2	P
35	Ethanol	% V/V		10	EN 13132	2000	0,8		10,5	P
36	Iso-propyl alcohol	% V/V		12	EN 13132	2000	0,8		12,5	P
37	Tert-butyl alcohol	% V/V		15	EN 13132	2000	1		15,6	P
38	Iso-butyl alcohol	% V/V		15	EN 13132	2000	1		15,6	P
39	Ethers with 5 or more carbon atoms per molecule	% V/V		22	EN 13132	2000	1		22,6	P
40	Other oxigenates	% (m/m)		15	EN 13132	2000	1		15,6	P
41	Oxygen content	% V/V		3,7	EN-ISO 22854	2008	0,4		3,9	P
42	Oxygen content	% V/V		2,7	EN-ISO 22854	2008	0,4		2,9	P
43	Methanol	% V/V		3	EN-ISO 22854	2008	0,4		3,2	P
44	Ethanol	% V/V		10	EN-ISO 22854	2008	0,6		10,4	P
45	Iso-propyl alcohol	% V/V		12	EN-ISO 22854	2008	0,7		12,4	P
46	Tert-butyl alcohol	% V/V		15	EN-ISO 22854	2008	0,7		15,4	P
47	Iso-butyl alcohol	% V/V		15	EN-ISO 22854	2008	0,7		15,4	P
48	Ethers with 5 or more carbon atoms per molecule			22	EN-ISO 22854	2008	0,9		22,5	P
49	Other oxigenates			15	EN-ISO 22854	2008	0,7		15,4	P
50	Sulphur content (sulphur free, from 2005)**	mg/kg		10	EN-ISO 14596	1998	5		13,0	P
51	Sulphur content (sulphur free, from 2005)**				EN 24260	1994	1,0		10,6	P
52	Sulphur content (sulphur free, from 2005)**				EN-ISO 20846	2004	2,7		11,6	P
53	Sulphur content (sulphur free, from 2005)**				EN-ISO 20884	2004	3,1		11,8	P

TestAnalysys										
Order	Parameter	Unit	LMax	Lmin	Method	Date	Reprodu cability	tolerance Min	toleranc eMax	Fueltype
54	Lead content	g/l		5	EN 237	2004	0,62		5,4	P
55	Manganese	mg/l		2	EN 16135	2011	1,53		2,90	P
56	Manganese					2011	1,76		3,04	P
	Cetane number	--	51,0		EN-ISO 5165	1998	4,3	48,5		D
57	Density at 15 °C	kg/m ³		845	EN-ISO 3675	1998	1,2		845,7	D
58	Density at 15 °C				EN-ISO 12185	1996	0,5		845,3	D
59	Distillation -- 95% Point	°C		360	EN-ISO 3405	2000	10,0		365,9	D
60	Polycyclic aromatic hydrocarbons	% (m/m)		11	EN 12916	2006	1,9		12,1	D
61	Sulphur content (sulphur free, from 2005)	mg/kg		10	EN-ISO 20846	2004	2,2		11,3	D
62	Sulphur content (sulphur free, from 2005)				EN-ISO 20884	2004	3,1		11,8	D
63	FAME Content	% V/V		7	EN14078	2009	0,5		7,3	D
64	Manganese	mg/l		2	EN 16135	2011	1,53		2,90	D
65	Manganese				EN 16136	2011	1,76		3,04	

3.10 YesNo

3.10.1 Schema

Field	Type	Description	Required
ID	nvarchar(1)	PK	
YesNo	nvarchar(3)	Yes or No	Yes

3.10.2 Values

YesNo	
ID	YesNo
Y	Yes
N	No

3.11 QUESTIONS

Sheet: Regional Petrol Sampling

Name/ID: which is this list???

Min. number of Samples per grade ⁽⁴⁾	Actual number of samples taken							
	Grade:	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
-	Name/ID:							
-								
-								
-								
-								
-								
-								

Sheet: Petrol

Summer Period: which is this list???. Is it by country?? It is based in the code list CountrybyPeriod

5	Period (Summer or Winter)	Summer
6	Parent fuel grade	Petrol
7	National fuel grade	
8	Summer Period (N or A)*	
9	The maximum bioethanol content (% v/v)	
10	* N = 1st May to 30th September (normal) ; A = 1st June to	
11		
12	Reporting results	
13		
	Parameter	Unit

4 Improvements

This XML file has been design from the Excel spreadsheet perspective. For the time being, MS will continue reporting using the Excel file without any update on it.

However we have detected several improvements to be done in the XML in a future in case of need.

- ✓ Contact field: This field could be split in different fields (name, surname, position...). It is necessary to define the fields in the Excel spreadsheet (or define a separator character to distinguish each value inside contact field)

- ✓ PeriodStart and PeriodEnd fiels could be transform into date type.

5 Schema

Schema available here: <http://dd.eionet.europa.eu/schemaset/FQD/view>