

如何通过 Assay Manager 在原油评价表中添加一个新物性？

编者按

1) 这篇[中文技术支持文章](#)将会告诉我们如何通过 Assay Manager 在原油评价表中添加一个新物性。

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5) 言归正传，请您欣赏我们的中文技术支持文章：

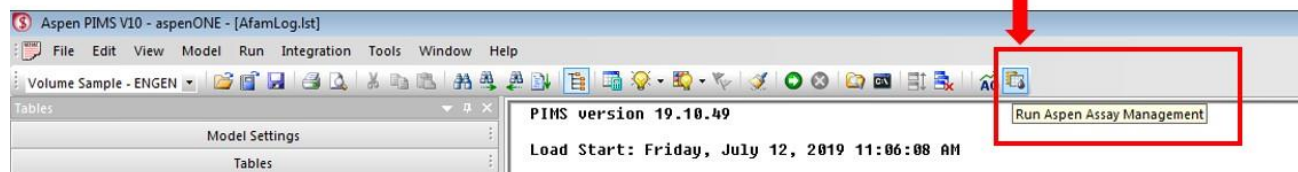
如何通过 Assay Manager 在原油评价表中添加一个新物性？

问题描述

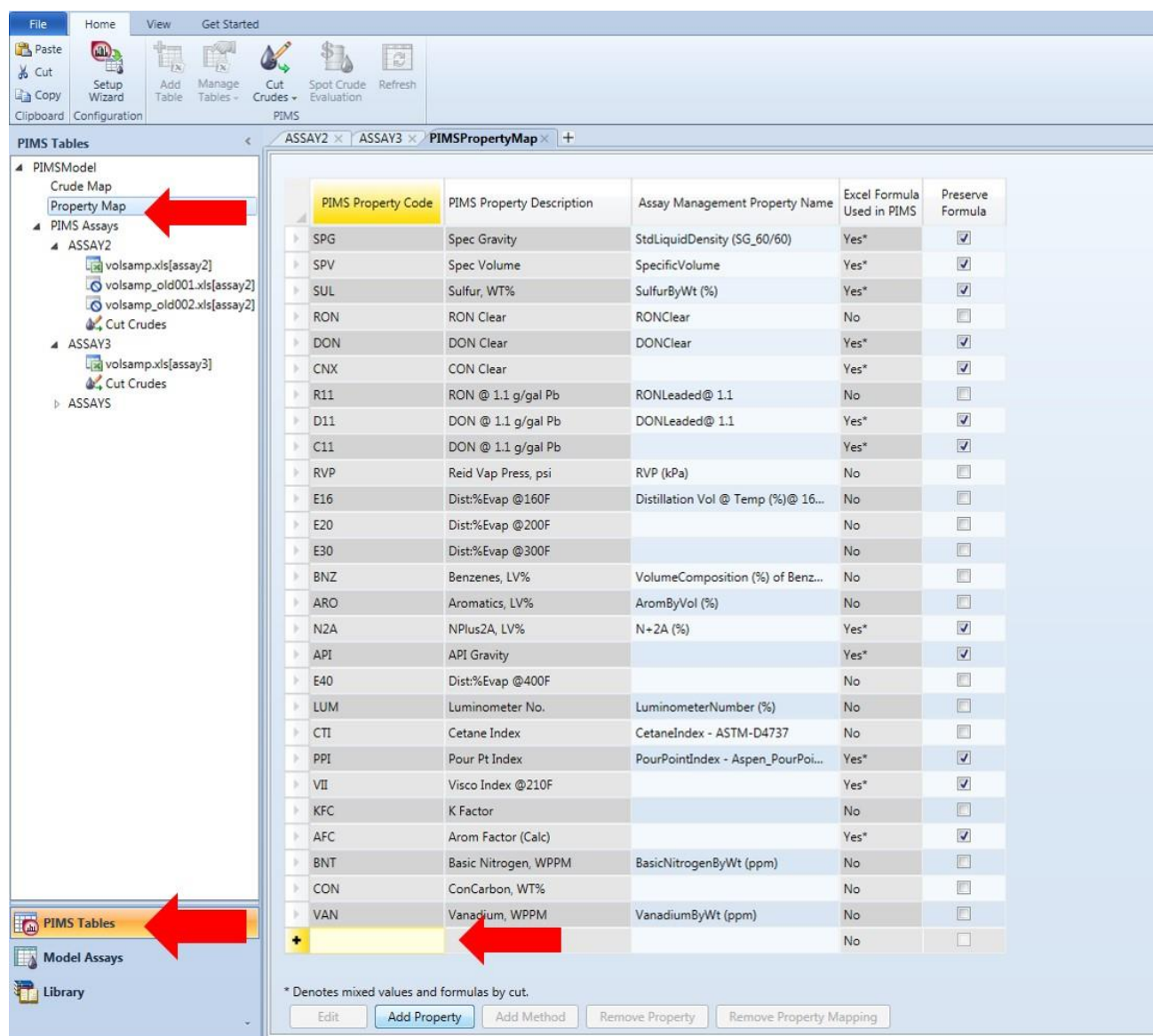
Assay Manager 提供了导出 PIMS 中原油评价表中定义的其他物性的链接。这篇技术支持文章将逐步介绍如何通过 Assay Manager 工具在 Assay 表中导出和添加物性的简便方法。

解决方案

1. 运行 Assay Manager 工具，随后一个新的窗口将显示如下图：



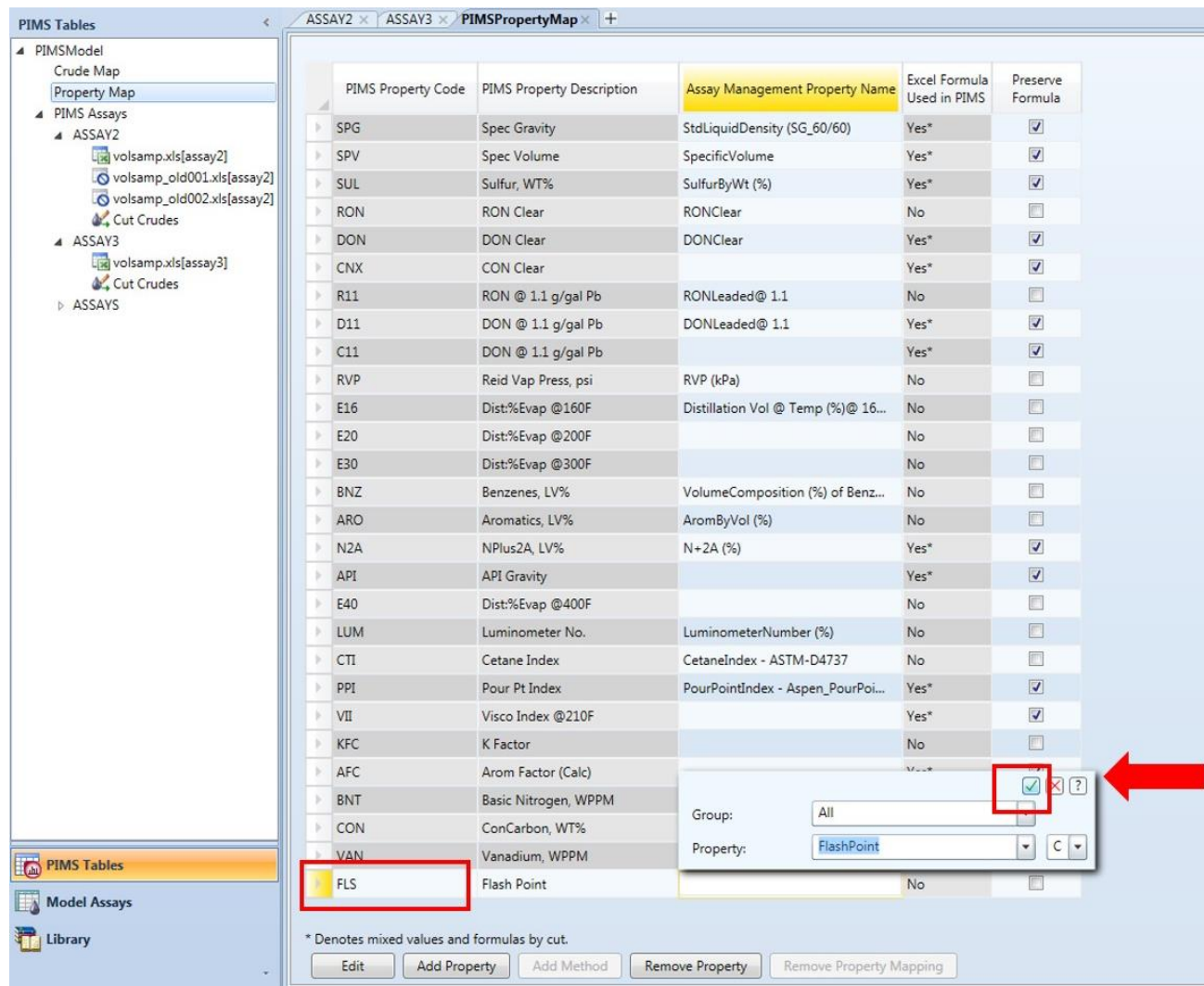
2. 在 Assay Manager 这个环境下，从左手边的 ‘PIMS Model’ 中，展开这一选项并点击 ‘Property Map’ 这一分支。如下图：



例如，我们已经选中了 Flash Point 这个物性。

3. 从最底部的物性列表中把这个物性添加为一个新的行

- a. 为闪点温度定义一个 3 个字母数字的标签，记住，这是一个用户自定义的标签。对于本次练习，我们将其定义为 FLS。
- b. 在下图每个列中把所需的信息补充完整。对于 Assay Manager Property Name 这一列，选择预定义的组合物性，然后再选择绿色勾选框。



The screenshot shows the PIMS Tables software interface. On the left, a tree view shows the project structure under 'PIMSModel', including 'Crude Map', 'Property Map', and 'PIMS Assays'. The main window displays a table with columns: PIMS Property Code, PIMS Property Description, Assay Management Property Name, Excel Formula Used in PIMS, and Preserve Formula. The table lists various properties like SPG, SPV, SUL, RON, DON, CNX, R11, D11, C11, RVP, E16, E20, E30, BNZ, ARO, N2A, API, E40, LUM, CTI, PPI, VII, KFC, AFC, BNT, CON, VAN, and FLS. The FLS property is highlighted with a red box. A context menu is open for the FLS property, showing the 'FlashPoint' property selected. A red arrow points to the green checkmark icon in the context menu.

PIMS Property Code	PIMS Property Description	Assay Management Property Name	Excel Formula Used in PIMS	Preserve Formula
SPG	Spec Gravity	StdLiquidDensity (SG_60/60)	Yes*	☒
SPV	Spec Volume	SpecificVolume	Yes*	☒
SUL	Sulfur, WT%	SulfurByWt (%)	Yes*	☒
RON	RON Clear	RONClear	No	☐
DON	DON Clear	DONClear	Yes*	☒
CNX	CON Clear		Yes*	☒
R11	RON @ 1.1 g/gal Pb	RONLeaded@ 1.1	No	☐
D11	DON @ 1.1 g/gal Pb	DONLeaded@ 1.1	Yes*	☒
C11	DON @ 1.1 g/gal Pb		Yes*	☒
RVP	Reid Vap Press, psi	RVP (kPa)	No	☐
E16	Dist:%Evap @160F	Distillation Vol @ Temp (%)@ 16...	No	☐
E20	Dist:%Evap @200F		No	☐
E30	Dist:%Evap @300F		No	☐
BNZ	Benzenes, LV%	VolumeComposition (%) of Benz...	No	☐
ARO	Aromatics, LV%	AromByVol (%)	No	☐
N2A	NPlus2A, LV%	N+2A (%)	Yes*	☒
API	API Gravity		Yes*	☒
E40	Dist:%Evap @400F		No	☐
LUM	Luminometer No.	LuminometerNumber (%)	No	☐
CTI	Cetane Index	CetaneIndex - ASTM-D4737	No	☐
PPI	Pour Pt Index	PourPointIndex - Aspen_PourPoi...	Yes*	☒
VII	Visco Index @210F		Yes*	☒
KFC	K Factor		No	☐
AFC	Arom Factor (Calc)			
BNT	Basic Nitrogen, WPPM			
CON	ConCarbon, WT%			
VAN	Vanadium, WPPM			
FLS	Flash Point		No	☐

4. 对于‘闪点指数’进行上述同样的操作。对于本次练习，我们将其定义为 FLI

PIMS Model [Volume Sample - ENGEN - DEMO]- A

File Home View Get Started

Paste Cut Copy Setup Wizard Add Table Manage Tables Cut Crudes Spot Crude Evaluation Refresh

PIMS Tables

ASSAY2 ASSAY3 PIMSPropertyMap

PIMSModel

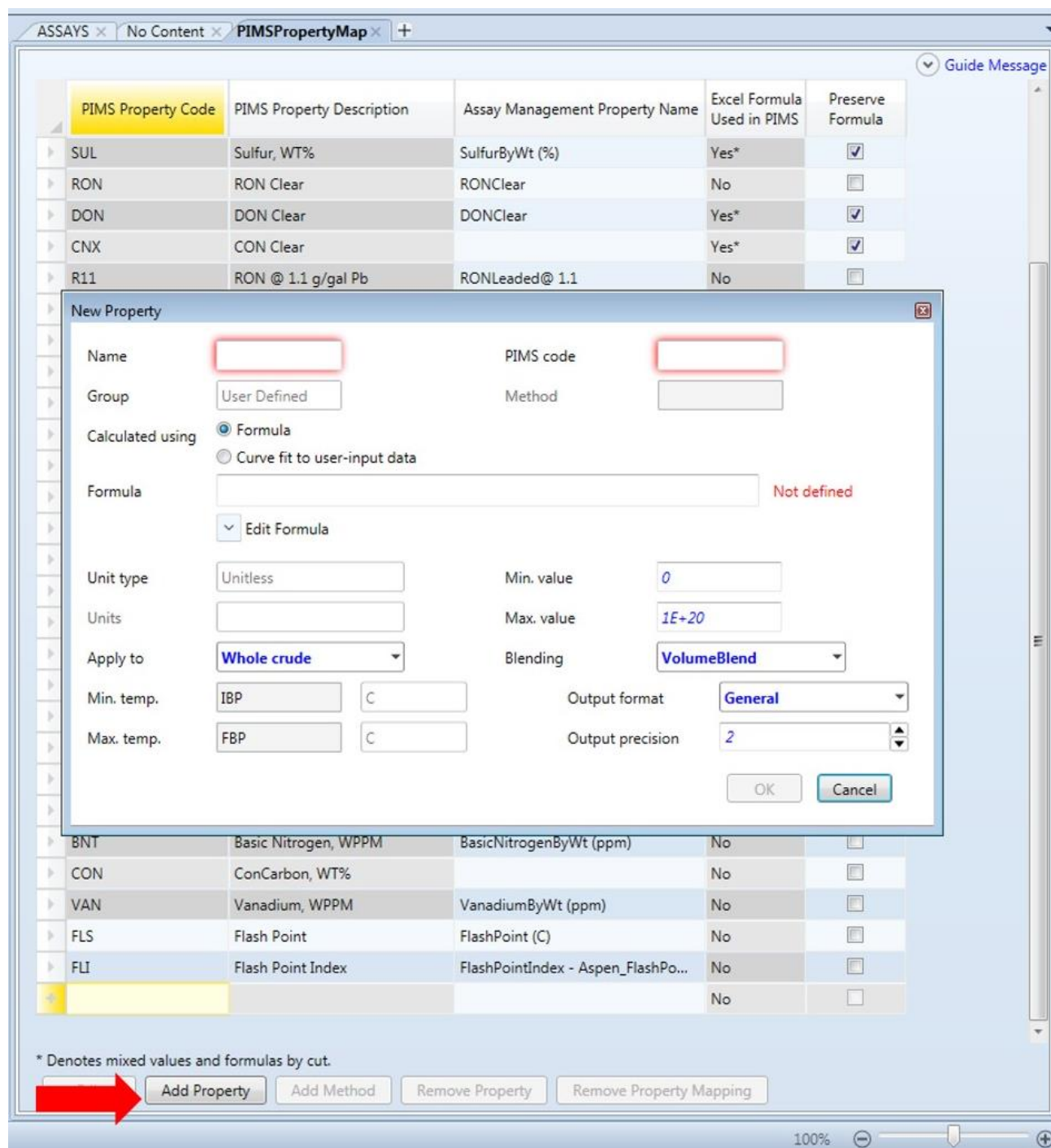
- Crude Map
- Property Map
- PIMS Assays
 - ASSAY2
 - volsamp.xls[assay2]
 - volsamp_old001.xls[assay2]
 - volsamp_old002.xls[assay2]
 - Cut Crudes
 - ASSAY3
 - volsamp.xls[assay3]
 - Cut Crudes
 - ASSAYS

PIMS Property Code	PIMS Property Description	Assay Management Property Name	Excel Formula Used in PIMS	Preserve Formula
SUL	Sulfur, WT%	SulfurByWt (%)	Yes*	☒
RON	RON Clear	RONClear	No	☐
DON	DON Clear	DONClear	Yes*	☒
CNX	CON Clear		Yes*	☒
R11	RON @ 1.1 g/gal Pb	RONLeaded@ 1.1	No	☐
D11	DON @ 1.1 g/gal Pb	DONLeaded@ 1.1	Yes*	☒
C11	DON @ 1.1 g/gal Pb		Yes*	☒
RVP	Reid Vap Press, psi	RVP (kPa)	No	☐
E16	Dist:%Evap @160F	Distillation Vol @ Temp (%)@ 16...	No	☐
E20	Dist:%Evap @200F		No	☐
E30	Dist:%Evap @300F		No	☐
BNZ	Benzenes, LV%	VolumeComposition (%) of Benz...	No	☐
ARO	Aromatics, LV%	AromByVol (%)	No	☐
N2A	NPlus2A, LV%	N+2A (%)	Yes*	☒
API	API Gravity		Yes*	☒
E40	Dist:%Evap @400F		No	☐
LUM	Luminometer No.	LuminometerNumber (%)	No	☐
CTI	Cetane Index	CetaneIndex - ASTM-D4737	No	☐
PPI	Pour Pt Index	PourPointIndex - Aspen_PourPoi...	Yes*	☒
VII	Visco Index @210F		Yes*	☒
KFC	K Factor		No	☐
AFC	Arom Factor (Calc)		Yes*	☒
BNT	Basic Nitrogen, WPPM	BasicNitrogenByWt (ppm)	No	☐
CON	ConCarbon, WT%		No	☐
VAN	Vanadium, WPPM	VanadiumByWt (ppm)	No	☐
FLS	Flash Point	FlashPoint (C)	No	☐
FLI	Flash Point Index	FlashPointIndex - Aspen_FlashPo...	No	☐
			No	☐

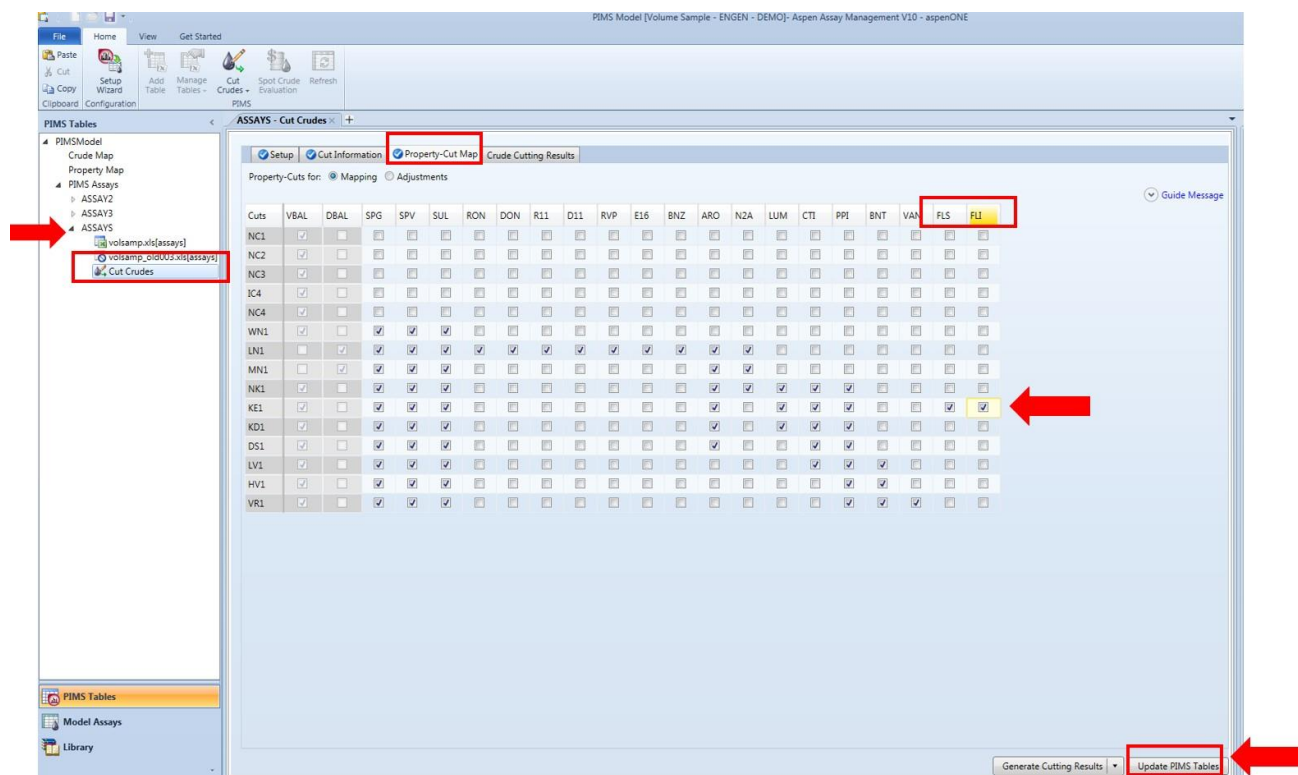
* Denotes mixed values and formulas by cut.

Edit Add Property Add Method Remove Property Remove Property Mapping

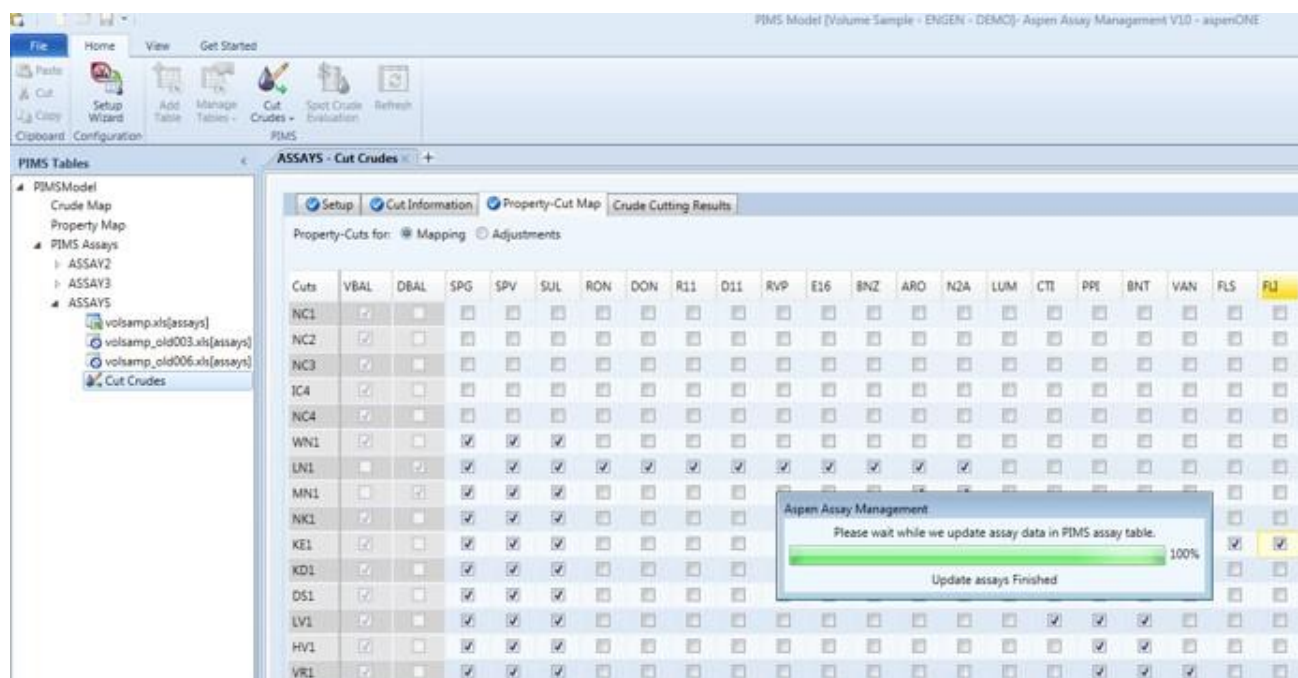
5. 另一种方法是使用 ‘Add Property’ ， 然后进行如下图所示的相应信息的补充。



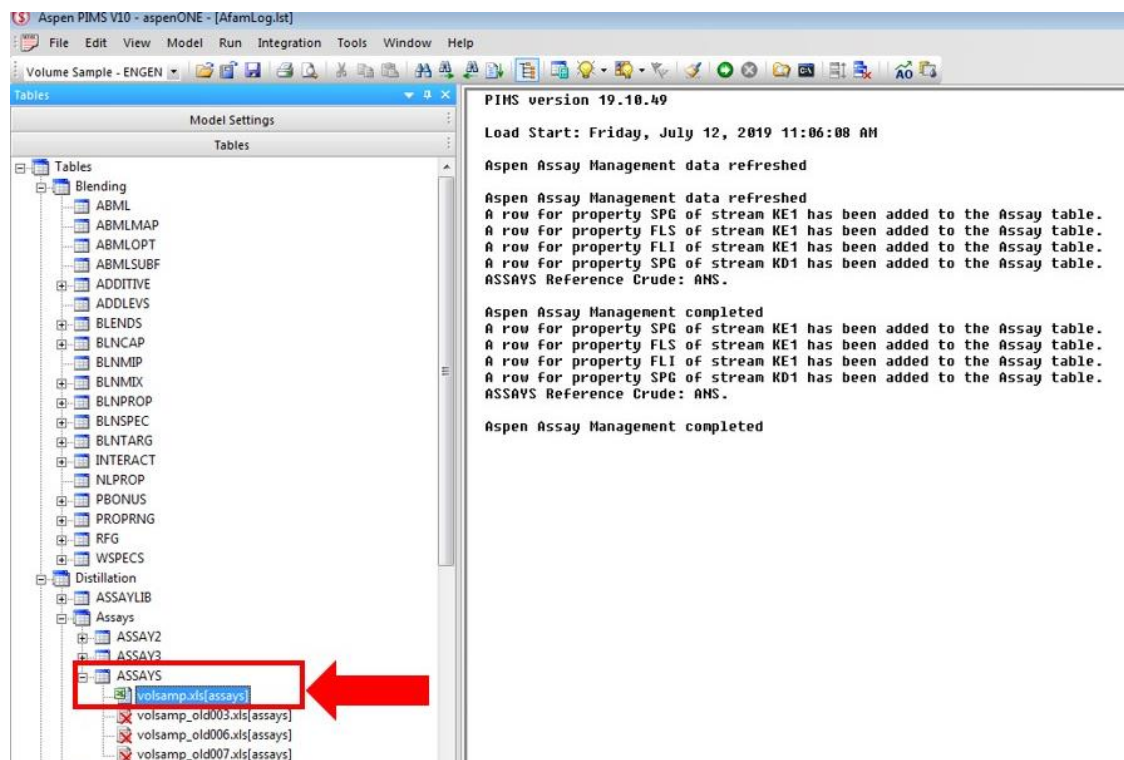
6. 为了绘制出将要在 Assay 表中使用的的原油切割图，用户需要选择 ‘Property-Cut Map’ 标签，然后选择在左侧 PIMS Assay 的 ‘Cut Crude’ 。



7. 选择上图指示的 ‘Update PIMS Tables’ ，然后等待 ‘100%’ 的完成结果，表示表格更新完成。



8. 关闭 Assay Manager 工具，找到 PIMS 中 Assay 分支中相关的更新后的 Assay Excel 文件，并打开它。



9. 新添加的行将被显示在 **Assay** 表的最后。请注意 **PIMS** 中关于物性的行名都是以 ‘I’ 开头，然后是三字符的物性名加上三字符产品标签。例如，本次练习中，**PIMS** 会生成 **IFLSKE1** 和 **IFLIKE1** 行。

B256		Table of Contents											
A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	TABLE	Table of Contents											
2	ASSAYS	Table of Contents											
3	Crude Assay Data	Table of Contents											
4	Operating Mode ->	Table of Contents											
5		Table of Contents											
6	Nominal API Gravity	26.4	28	34.2	17	34.1	36.05	36.4	35.3	37.2	31.6	26.4	
7	Nominal Sulfur, WT%	1.22	2.85	1.79	2.4	1.35	1.97	2.52	0.08	0.25	1.1	1.22	
8	Crude Type	Sweet	Sour	Sour	Sour	Sour	Sour	Sweet	Sweet	Sweet			
9	Calc API Gravity	26.38813784	26.94467512	33.72640309	17.13735568	33.23276284	36.14516183	34.70729058	35.12536311	36.29755778	31.13928646	26.38813784	
10	Calc Spec Gravity	0.896204122	0.893056203	0.856400656	0.951981414	0.858969597	0.844044638	0.851346529	0.849210452	0.843278066	0.870023492	0.896204122	
11	Calc Sulfur, WT%	1.019482305	2.756434884	1.615609642	2.222049626	1.272909913	1.773949785	2.214188856	0.07907002	0.312263174	1.105658444	1.019482305	
12													
13	TEXT	ANS	AHV	ARL	BAC	IRL	KIR	KUW	MIN	NSF	TJL	MYA	***
14	IVISVR1	Viscosity, CST@210F	20005681.12669	5000000.72000	200090.23171	2500.72000	199931.74432	239956.88092	200478.84637	1500.65401	39986.17734	1500255.64609	20005681.12669
15	VIINK1	Visco Index @210F	0.85864	0.21105	0.21105	0.25198	0.21105	0.21105	0.21105	0.21105	0.21105	0.21105	0.85864
16	VIKI1	Visco Index @210F	0.85864	0.21105	0.21105	0.25231	0.21105	0.21105	0.21105	0.21105	0.21105	0.21105	0.85864
17	VIKID1	Visco Index @210F	1.23653	0.23568	0.23568	0.25612	0.21105	0.23620	0.24236	0.21930	0.25909	0.21105	1.23653
18	VIIDS1	Visco Index @210F	1.38237	0.54125	0.52107	0.73357	0.51031	0.54888	0.54255	0.51734	0.54789	0.56579	1.38237
19	VIIAR1	Visco Index @210F	2.04470	2.05547	1.66550	1.77182	1.71339	1.77252	1.76238	1.44588	1.57404	1.84923	2.04470
20	VIILV1	Visco Index @210F	1.51588	0.85726	0.81503	1.15530	0.81981	0.83980	0.82165	0.76586	0.83050	0.89096	1.51588
21	VIHVR1	Visco Index @210F	1.63916	1.33944	1.33656	1.47211	1.37999	1.36912	1.29447	1.16159	1.32009	1.34092	1.63916
22	VIIVR1	Visco Index @210F	2.82206	2.73599	2.50197	2.05728	2.50191	2.51675	2.50213	1.98982	2.36051	2.65473	2.82206
23													
24	ICONAR1	ConCarbon, WT%	8.38556	13.82321	8.26930	16.87389	7.60337	9.16495	11.97780	4.54505	4.53581	9.37473	8.38556
25	ICONLV1	ConCarbon, WT%	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
26	ICONHV1	ConCarbon, WT%	2.00000	1.25000	3.36000	8.40000	1.00000	1.00000	1.00000	0.10000	0.10000	1.00000	2.00000
27	ICONVR1	ConCarbon, WT%	19.40000	24.20000	19.20000	24.30000	21.00000	22.00000	27.00000	12.00000	16.50000	21.00000	19.40000
28													
29	IVANVR1	Vanadium, WPPM	151.00000	205.00021	116.00012	888.00089	190.00019	182.00018	133.00013	103.00010	123.00012	534.00053	215.66777
30	IVANCOK	Vanadium, WPPM	130.00000	406.00000	230.00000	3000.00000	376.00000	360.00000	263.00000	204.00000	244.00000	1057.00000	130.00000
31													
32	UATMSTM	ATM Steam, M LBS	0.00853	0.00850	0.00815	0.00906	0.00818	0.00804	0.00810	0.00808	0.00803	0.00828	0.00853
33	UVACSTM	VAC Steam, M LBS	0.02275	0.02267	0.02174	0.02417	0.02181	0.02143	0.02161	0.02156	0.02141	0.02209	0.02275
34													
35	PXXXREM	Ave API, Crude Mix:											
36	PAPIAV1	CDU1, Mode1	26.38814	26.94468	33.72640	17.13736	33.23276	36.14516	34.70729	35.12536	36.29756	31.13929	26.38814
37													
38	IFLSKE1	Flash Point	165.8394859	165.7282157	165.6296364	165.4097312	165.7193559	165.605811	165.534927	165.8776389	165.888788	165.8355678	165.4468555
39	IFLIKE1	Flash Point Index	1.48068E-05	1.48129E-05	1.48184E-05	1.48308E-05	1.48134E-05	1.48198E-05	1.48237E-05	1.48045E-05	1.48038E-05	1.48068E-05	1.48287E-05
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关键词

Aspen PIMS, Assay Table, 原油评价表, Property, 物性, Chinese, 中文