



Department of Mineral Fuels  
**MINISTRY OF ENERGY**

# Department of Mineral Fuels Petroleum Exploration and Production Data Management

by

**Kanitta Danudom**

November 16, 2010

# Outline



History



Physical management

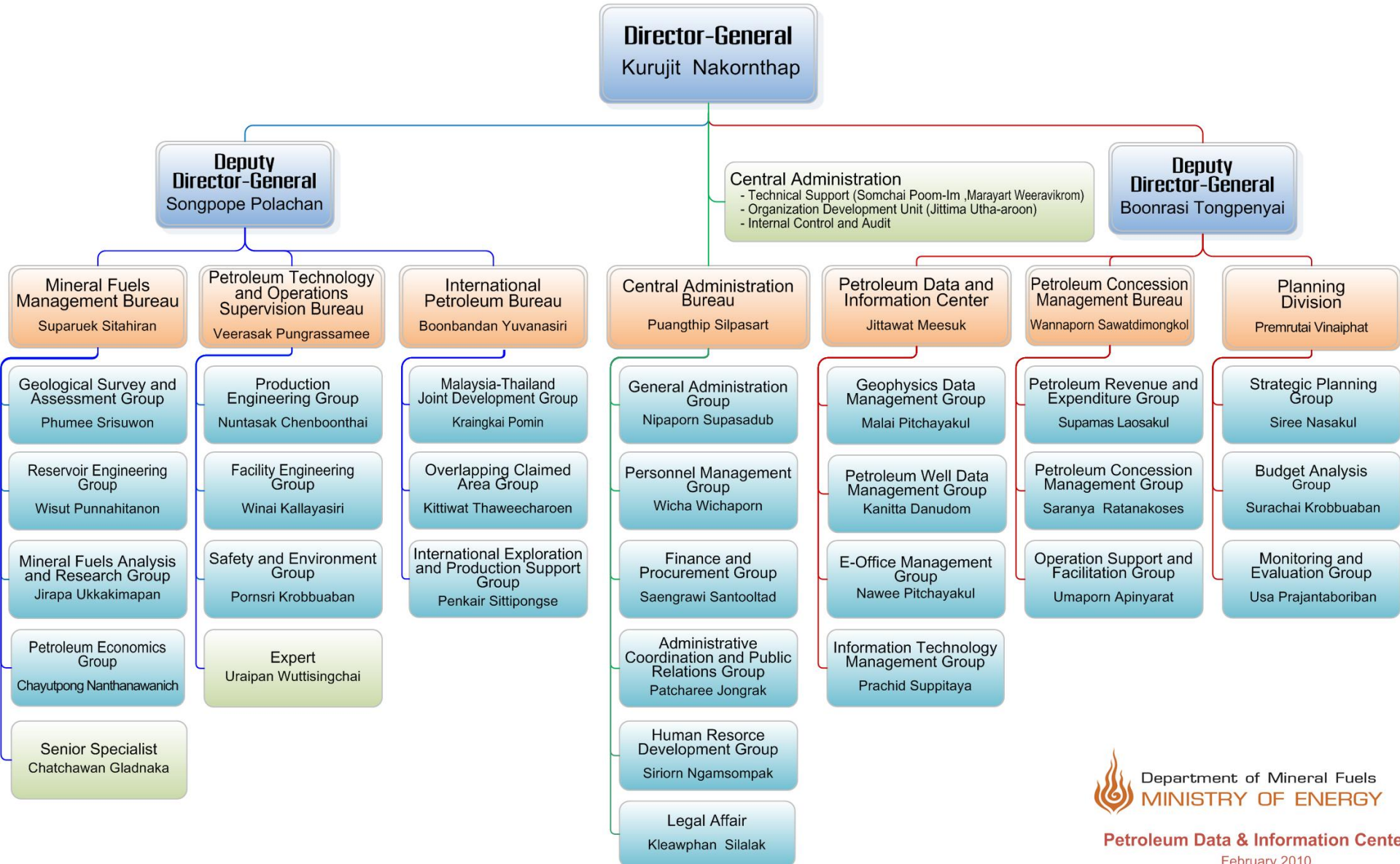


Database management



Conclusion

# Department of Mineral Fuels





# Receive E&P Data policies



Petroleum Act B.E.2514 article 76

“ Concessionaire must submit E&P data as per Announcement of The Department of Mineral Fuels on March 4<sup>th</sup> , 2004”

(Subject: Rules, Procedures and Period for the submission of Reports on Petroleum Operation as article 2.4(6) and (7).

# Original data from Concessionair

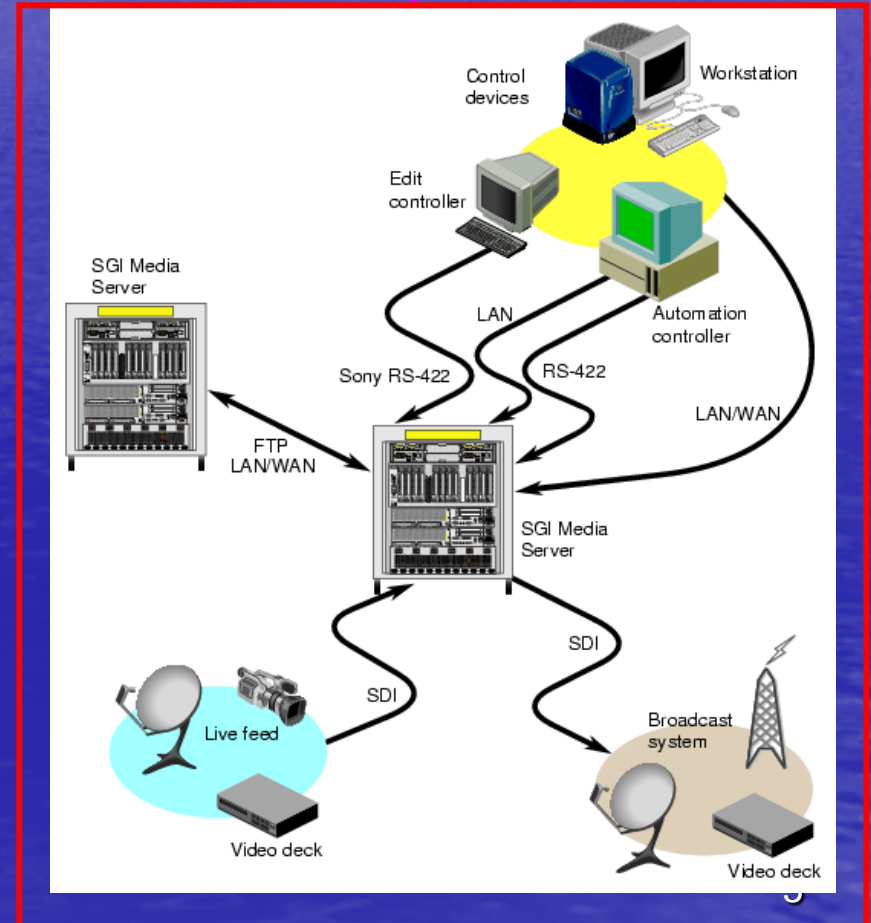


## Set up system

Copy original media to network storage disk



online intranet





# E&P PETROLEUM DATA MANAGEMENT

## Roles



• End User



• Database Administrator



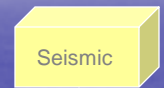
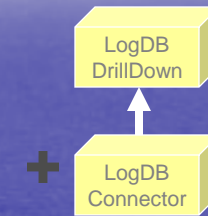
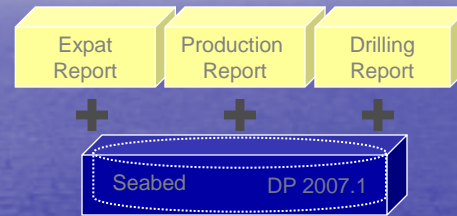
• Data Manager  
• Data Loader



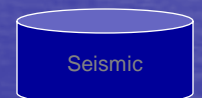
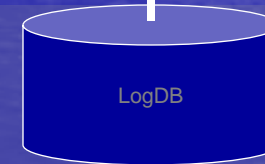
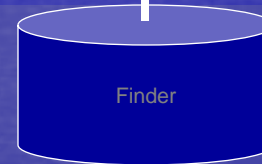
• Operators

## Workflows/Solutions

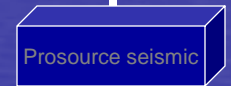
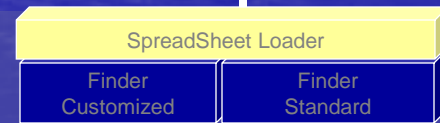
### Web



### Databases

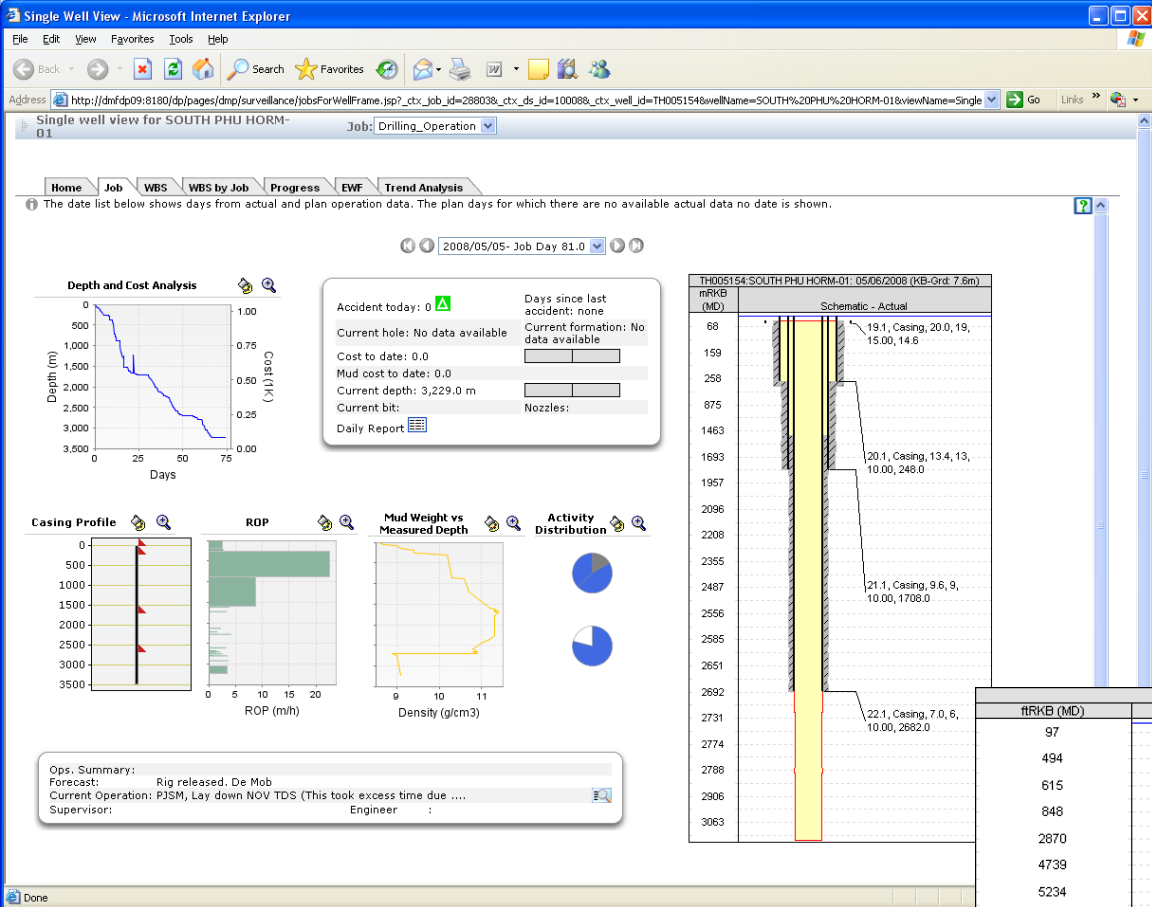


### Applications



### Data Types

- Expat
- Well Header Data
- Well Log - Edited
- Well Report
- Drilling Data
- Production Data
- Well Log - Field
- Seismic Data

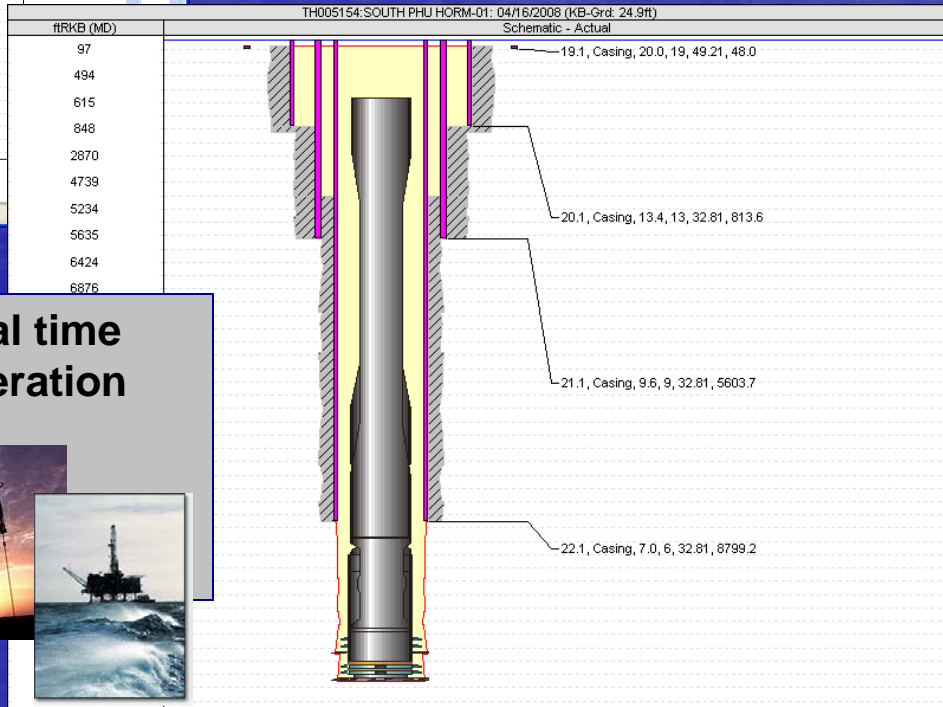


# Pilot Project

Drilling data 1 well

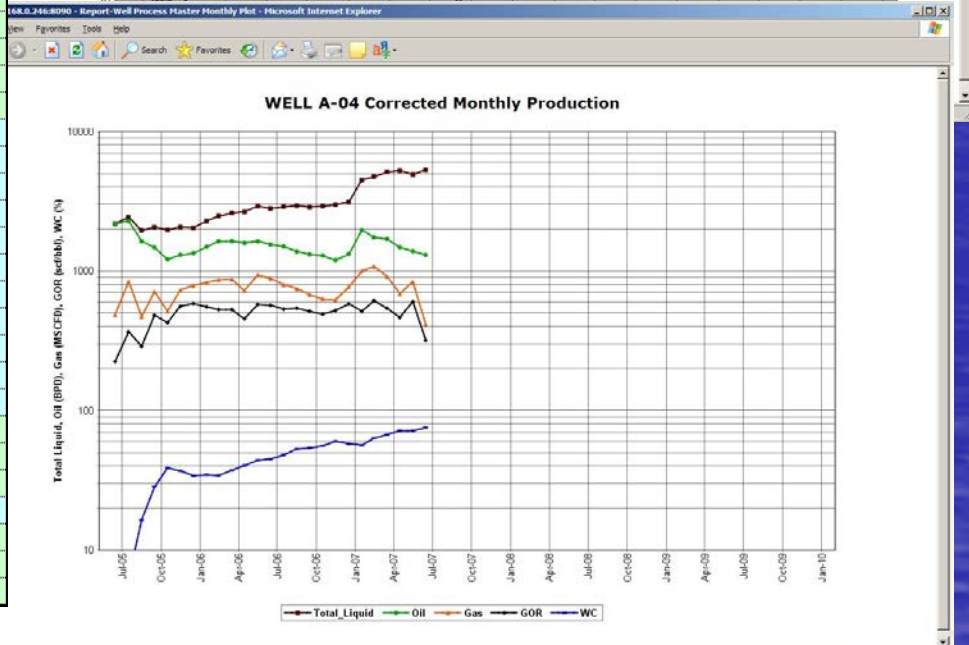
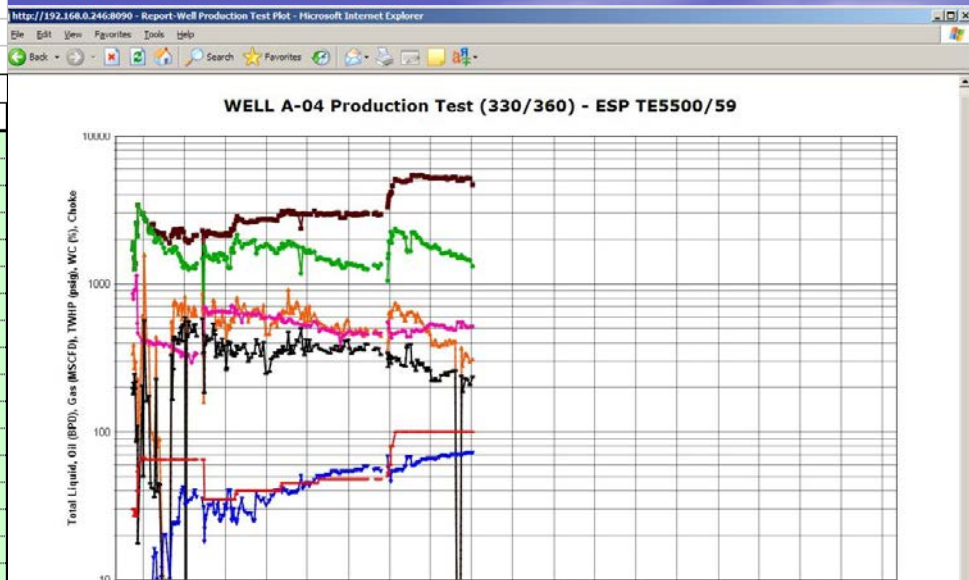
Real time Operation

In Future



# Production data 1 well to multi wells

TAD-03	Percentage of Pay Section		Gas(mmscf)		Oil(MSTB)		Condy(MSTB)	
	in each Gas Sales							
	Agreement (GSA) Area							
Well	B8/32	U3	B8/32	U3	B8/32	U3	B8/32	U3
TAD-03 01	100	0	0.93149177	0	97.62136841	0	26.42915154	0
TAD-03 03	18.52589641	81.47410359	0.196852581	0.821749524	22.17652923	97.52903717	5.234051598	23.01857101
TAD-03 04	76.68128655	23.31871345	0.871692046	0.265080803	89.02644599	27.07286584	24.7930329	7.539540034
TAD-03 05	100	0	1.218293212	0	117.444046	0	34.83286285	0
TAD-03 07	100	0	1.261051886	0	92.62463379	0	36.80849075	0
TAD-03 08	100	0	1.312268846	0	95.70109558	0	38.32128906	0
TAD-03 09	100	0	1.359740645	0	98.8343277	0	39.7161293	0
TAD-03 10	100	0	1.1502399	0	79.8067627	0	33.69578171	0
TAD-03 12	100	0	1.006959479	0	72.3372345	0	29.4341259	0
TAD-03 14	100	0	0.92041146	0	66.5555954	0	26.89292908	0
TAD-03 15	100	0	1.223808564	0	87.1312561	0	35.79317093	0
TAD-03 18	38.84694578	61.15305422	0.389468986	0.613103973	28.12654379	44.27694437	11.38059364	17.91538681
TAD-03 21	100	0	0.990268908	0	81.9437027	0	28.66507721	0
TAD-03 24	0	100	0	1.536309958	0	112.0149918	0	44.86445618
TAD-03 25	46.01889339	53.98110661	0.591065131	0.693331532	42.2323655	49.53943168	17.28318025	20.27352522
TAD-03 26	0	100	0	1.123675905	0	80.09571075	0	32.86212158
TAD-03 27	31.07221007	68.92778993	0.476579881	1.057201849	33.24105137	73.73895199	13.95665713	30.9601901
TAD-03 29	100	0	0.877098203	0	92.75770589	0	24.8640728	0
TAD-03 31	100	0	1.850576431	0	119.3818665	0	54.44644928	0
TAD-03 32	100	0	1.88512975	0	118.9604568	0	55.53201675	0
TAD-03 06	100	0	0.752402812	0	54.41501236	0	21.98377419	0
TAD-03 13	100	0	0.747587025	0	54.48393631	0	21.83221054	0
TAD-03 28	100	0	0.623923667	0	45.26726913	0	18.22811046	0
TAD-03 36	100	0	0.92	0	67	0	26.89292908	0
TAD-03 37	100	0	1.01	0	72	0	29.4341259	0



Daily Production by well

1/12/2011



# Single source data

- FUNAN
  - FUNAN-01
    - Logs
      - CAL;0
      - DT;0
      - GR;0
      - ILD;0
      - LLD;0
      - LLS;0
      - MSP;0
      - NPHIOH;0
      - RHOB;0
      - SFL;0
      - SP;0
      - TOC;0
      - WDSCOAL;0
    - Markers
      - A91-M
      - B
        - B48-M
        - B82-M
      - C
      - D
      - D75-M
      - E
      - E87-M
      - F
      - F15-M
      - F28-M
      - G
      - G16-M
      - H
    - MMU
    - Cores
    - Completions
    - Core Images
    - FUNAN-03

**Well Data :**  
**Net pay,**  
**marker, test,**  
**lithology,**  
**Wireline log**  
**etc..**

Data View

Data View of PECS>Data Repositories\Finder 9.2 Data Sources\PECS\Fields\FUNAN

Page 1 of 2 Table Size 100

Name	Uwi	SPUD	Depth	X	Y	Working Datum
FUNAN-01	0-02-00118	9/10/81 12:00 AM	2,593	788,025.936	985,820.507	10.67
FUNAN-03	0-02-00498	3/11/89 12:00 AM	3,723.7	789,091.561	987,300.897	15.24
FUNAN-05	0-02-00506	4/30/89 12:00 AM	3,297.8	787,981.413	978,364.592	15.24
FUNAN-09	0-02-00520	7/21/89 12:00 AM	3,543	788,341.473	981,014.601	15.24
FUNAN-11	0-02-00524	9/1/89 12:00 AM	3,503.4	788,491.496	983,714.659	15.24
FUNAN-12	0-02-00527	9/19/89 12:00 AM	3,291.8	787,977.902	978,364.567	15.24
FUNAN-13	0-02-00532	10/12/89 12:00 AM	3,428.1	783,840.787	975,414.521	15.24
FUNAN-17	0-02-00650	11/27/91 12:00 AM	3,604.9	782,387.282	980,091.012	19.81
FUNAN-20	0-02-01746	4/11/98 12:00 AM	2,908.7	—	—	—
FUNAN-21	0-02-01759	5/2/98 12:00 AM	3,080.6	781,564.85	984,378.745	29.87
FUNAN-22	0-02-01767	5/11/98 12:00 AM	3,034.6	782,222.632	971,953.827	—
FUNAN-23	0-02-01773	5/23/98 12:00 AM	3,033.7	779,577.293	973,879.681	29.87
FUNAN-25	0-02-02506	7/27/00 12:00 AM	3,282.7	789,246.718	972,356.002	—
FUNAN-26(ST1)	0-02-02516	8/14/00 12:00 AM	2,869.69	780,002.674	975,974.912	—
FUNAN-A02	0-02-00578	9/15/90 12:00 AM	3,448.8	789,125.367	987,306.548	26.2
FUNAN-A03	0-02-00580	9/26/90 12:00 AM	2,744.7	789,125.367	987,306.548	26.2
FUNAN-A04	0-02-00581	10/6/90 12:00 AM	3,560.1	789,128.448	987,303.493	26.2
FUNAN-A05	0-02-00583	10/18/90 12:00 AM	4,214.2	789,128.448	987,303.493	26.2
FUNAN-A06	0-02-00586	10/29/90 12:00 AM	3,066.6	789,125.367	987,306.548	26.2
FUNAN-A07	0-02-00587	11/4/90 12:00 AM	4,087.4	789,125.367	987,306.548	26.2
FUNAN-A08	0-02-00588	11/12/90 12:00 AM	2,746.9	789,125.367	987,306.548	26.2
FUNAN-A09	0-02-00589	11/23/90 12:00 AM	3,891.1	789,125.367	987,306.548	26.2
FUNAN-A10	0-02-00623	6/22/91 12:00 AM	3,118.1	789,128.73	987,307.191	26.2
FUNAN-A11	0-02-00625	7/4/91 12:00 AM	3,792.6	789,125.367	987,306.548	26.2
FUNAN-A12	0-02-02489	7/15/91 12:00 AM	—	789,086.102	987,291.542	—
FUNAN-A12(ST1)	0-02-02490	7/15/91 12:00 AM	—	789,086.102	987,291.542	—
FUNAN-A12(ST2)	0-02-00627	7/15/91 12:00 AM	3,822.5	789,128.73	987,307.191	26.2
FUNAN-A13	0-02-01272	6/15/97 12:00 AM	3,410.7	789,129.335	987,307.196	26.2
FUNAN-A14	0-02-01262	5/20/97 12:00 AM	3,788.7	789,128.426	987,306.57	26.2
FUNAN-A15	0-02-01267	6/3/97 12:00 AM	4,031.6	789,129.335	987,307.196	26.2
FUNAN-A16	0-02-01266	5/29/97 12:00 AM	3,778	789,128.426	987,306.57	26.2
FUNAN-A17	0-02-01271	6/10/97 12:00 AM	3,163.8	789,129.335	987,307.196	26.2
FUNAN-A18	0-02-01278	6/21/97 12:00 AM	2,813	789,129.335	987,307.196	26.2
FUNAN-B01(FUNAN-07)	0-02-00511	6/2/89 12:00 AM	3,753.3	789,076.222	992,476.819	15.24
FUNAN-B02(FUNAN-08)	0-02-00516	6/30/89 12:00 AM	4,195.6	789,091.175	990,513.808	15.24
FUNAN-B03	0-02-00596	1/10/91 12:00 AM	3,328.42	789,133.241	990,488.289	26.2
FUNAN-B04	0-02-00598	1/18/91 12:00 AM	2,895.6	788,479.105	990,483.62	26.2
FUNAN-B05	0-02-00600	1/24/91 12:00 AM	3,648.2	789,131.672	990,493.812	26.2
FUNAN-B06	0-02-00604	2/20/91 12:00 AM	3,315.31	789,131.672	990,493.812	26.2
FUNAN-B06(RD)	0-02-02000	2/20/91 12:00 AM	2,773.68	—	—	—
FUNAN-B07	0-02-00606	2/27/91 12:00 AM	3,810	789,131.672	990,493.812	26.2
FUNAN-B08	0-02-00607	3/9/91 12:00 AM	3,426	789,131.672	990,493.812	26.2
FUNAN-B09	0-02-00609	3/18/91 12:00 AM	3,386.3	789,131.672	990,493.812	26.2
FUNAN-B10	0-02-00612	3/25/91 12:00 AM	3,109	789,131.672	990,493.812	26.2
FUNAN-B11	0-02-00613	4/1/91 12:00 AM	3,440.3	789,131.672	990,493.812	26.2
FUNAN-B12	0-02-00615	4/9/91 12:00 AM	3,726.2	789,131.672	990,493.812	26.2
FUNAN-B13	0-02-02251	7/7/99 12:00 AM	2,855.98	789,090.609	990,472.597	—
FUNAN-B14	0-02-02252	7/7/99 12:00 AM	2,785.87	789,090.609	990,472.597	—
FUNAN-B15	0-02-02253	7/7/99 12:00 AM	3,244.29	789,090.609	990,472.597	—
FUNAN-B16	0-02-02254	7/7/99 12:00 AM	2,992.53	789,090.609	990,472.597	—

# Rock Sample data management



Conventional Core



Unwashed Cuttings



Washed Cuttings



All Rock Sample Data input in AssetDb Program





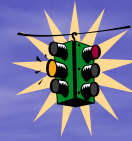


KASHED  
JUNCTION



ไป อ.เมืองระยอง ( 23 กม.)

(Rayong 23 Km.)



ไปจันทบุรี(80 กม.)→

(Chantaburi 80  
Km.)

ที่ทำการเทศบาลแกลงกะเจด



รร. & วัดท่าเรือแกลง  
(School & Temple  
Tha Rau Klang)



สถานีดับเพลิงเทศบาล



ศูนย์ข้อมูลตัวอย่างหิน DMF  
(DMF Core  
Warehouse)



← ไปสวนสน 5.5 กม.  
(Suan Son Park 5.5 Km.)

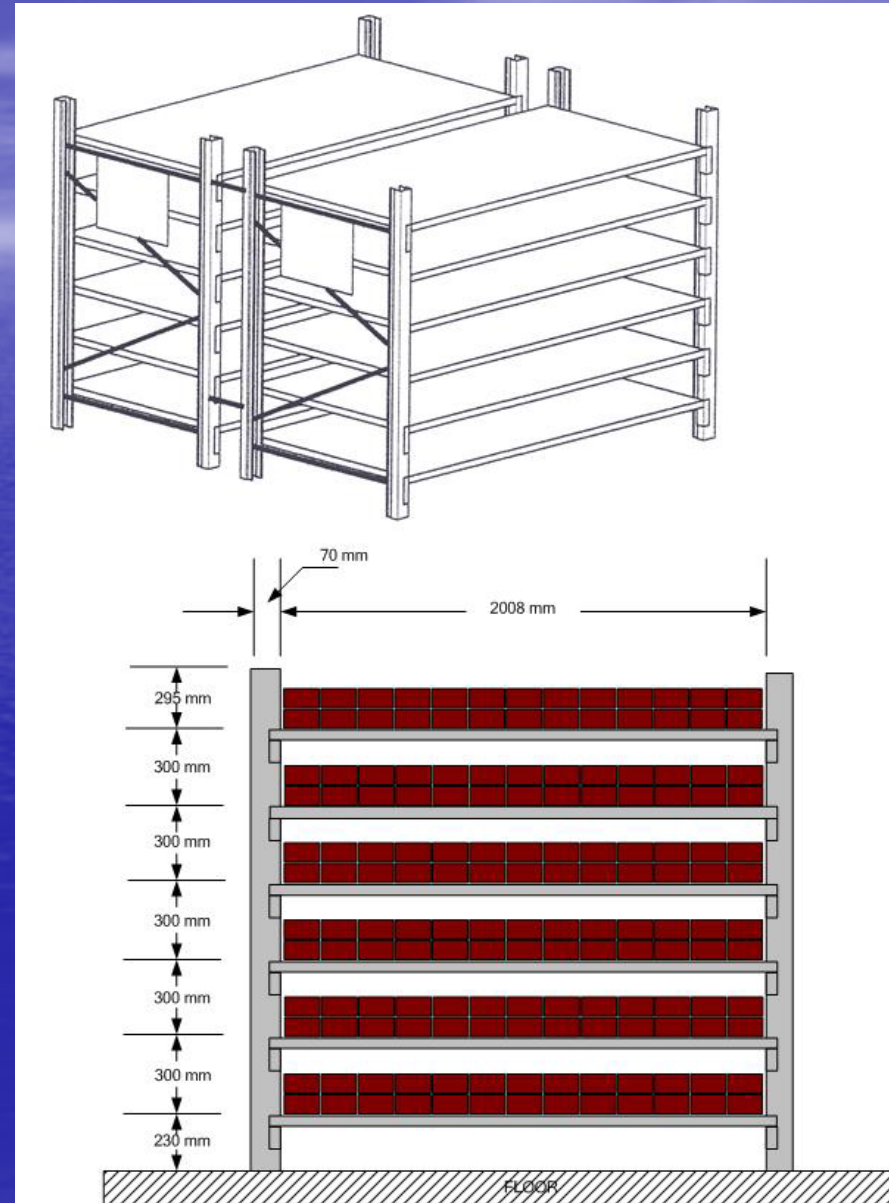


ไปแหลมแม่พิมพ์→

(Laem Mae Phim 7 Km.)

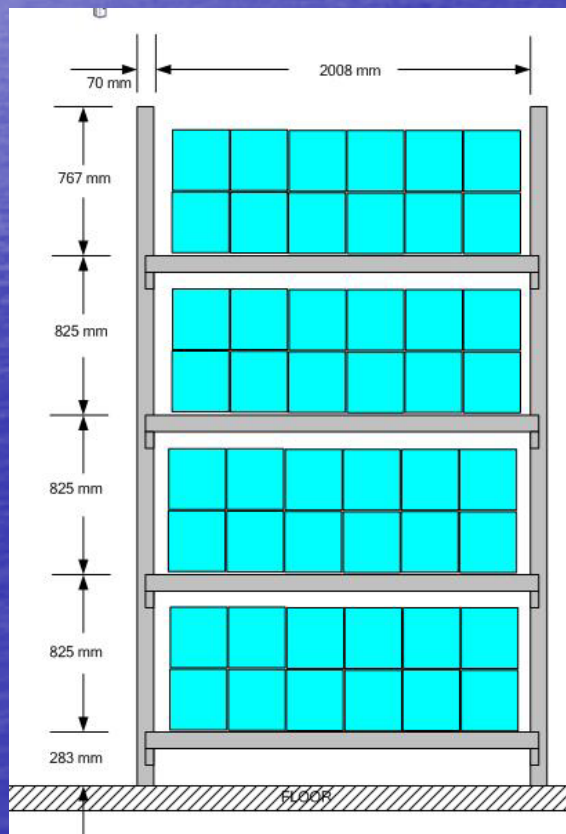
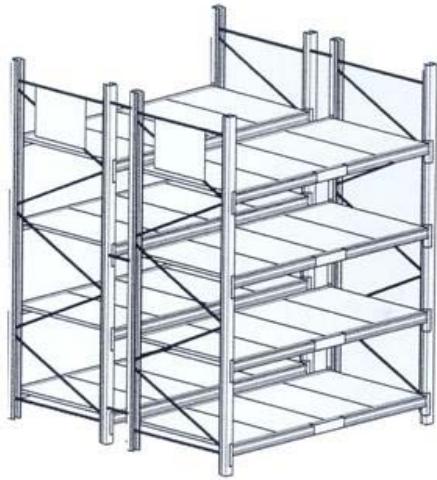


# CONVENTIONAL CORE LAYOUT



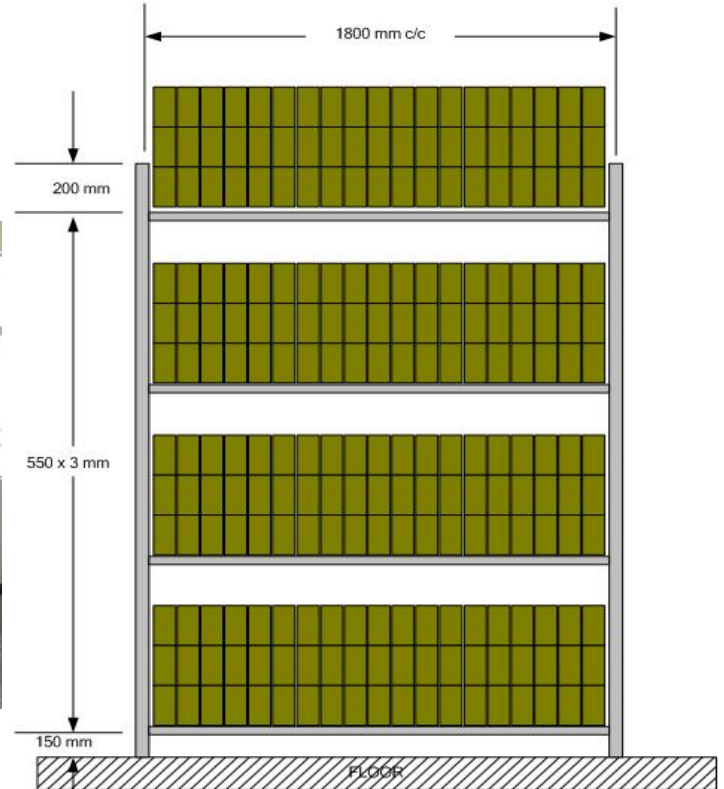
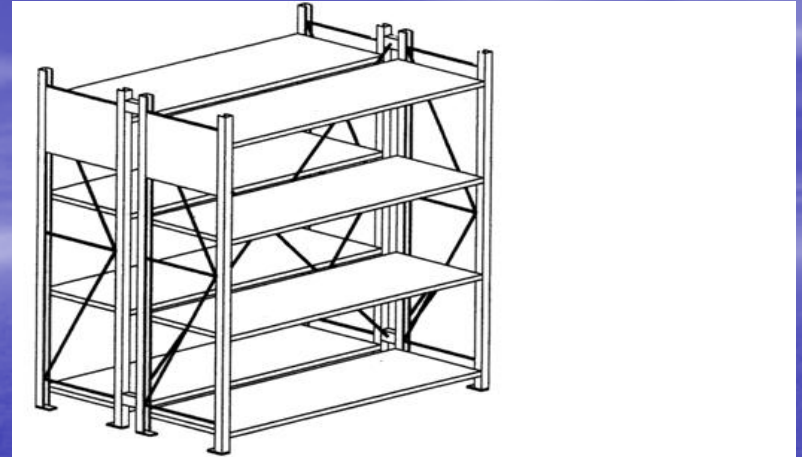


# UNWASHED CUTTING LAYOUT





# WASHED CUTTING LAYOUT



1/12/2011

# DMF Well Sample Management System

Location:

Bangkok Fileroom

Offsite Warehouse

Rayong





# DMF Well Sample Management System

Components:

□ Physical Management



□ Database Management

□ Hardware

□ Software

Geopolitical	UWI	Well Name	Operator	Spud Date	Drillers TD
TX	10076	Spider : 2		25-JAN-98	
Vietname	10077	SpiderBase : 3		03-FEB-98	
	10077a	S : 4	Maxus		



# Cataloging: AssetDB



AssetDB Web

Help  
Help

Search  
Wells  
Seismic  
SmartDoc  
Global Search

Order  
Shopping Cart

Order Status  
Order Status

User  
Setup  
Statistics  
Logout

### Asset List

1-10 of 31 Goto page 1 Next

Configure this page

Action	EP NAME▲	ASSET TITLE	EPKIND	GEOPOLITICAL	ENTERED ON	SUBTYPE	KIND
<a href="#">View</a>	667	Test Unpub Doc	SEISMIC LINE	INDIA	16-Aug-2001 09:25:00	Field Files	UNPUBLISHED
<a href="#">Add</a>	Infosys North	Infosys KT Document	SEISMIC SURVEY	UNITED STATES	05-Jun-2001 02:19:00	Training Manual	UNPUBLISHED
<a href="#">Add</a>	InfosysW	Infosys KT Document	WELL	HARRIS	05-Jun-2001 02:19:00	Training Manual	UNPUBLISHED
<a href="#">Add</a>	James R. Pepperson	Presidio County Well File	WELL	PRESIDIO	13-Aug-1999 08:32:00	Permits	UNPUBLISHED
<a href="#">Add</a>	James R. Pepperson	Well File from Presidio County, Texas	WELL	PRESIDIO	13-Aug-1999 08:35:00	Daily Drilling Reports	UNPUBLISHED
<a href="#">View</a>	TestSeismic	Test Unpub Doc	SEISMIC SURVEY	INDIA	16-Aug-2001 09:25:00	Field Files	UNPUBLISHED
<a href="#">Add</a>	Wildcat	Howard Glasscock Waterflood Study - PT-RE-0987	WELL	BASTROP	19-Jan-1999 01:29:00		
<a href="#">View</a>	test	Test Unpub Doc	WELL	INDIA	16-Aug-2001 09:25:00	Field Files	
	test	test11	WELL	INDIA	06-Sep-2001 02:22:00	Well Files	
<a href="#">View</a>		Absence Report		TEXAS	03-Feb-1999 02:20:00		

1-10 of 31 Goto page 1 Next

◇ Establishing control and tracking over cores with unique barcode

◇ On-Line catalog of core with supporting information, Image and document.



# DMF Well Sample Management System

## Data Type



### Core

- Conventional Core

- Sidewall Core - Core Plug

### Cuttings

- Unwashed Cuttings

- Washed Cuttings





# DMF Well Sample Management System

## Core

- ❑ Conventional Core
  - ❑ Core Box - 4,285 items
  
- ❑ Sidewall Core - Core Plug
  - ❑ Carton & Box - 15 items
  - ❑ Sample & Envelope - 231 items



# DMF Well Sample Management System

## Cuttings

### □ Unwashed Cuttings

- Unwashed Box - 3,556 items

### □ Washed Cuttings

- Washed Carton - 18,586 items
- Envelope - 852,823 items





# Conclusion

## PRESENT

- Physical managements policies
- Database managements policies
- Basic information of in database

## PLANNING in the FUTURE

- Service policies
- Study Room
- Online Data

# CCOP

## AFTER Metadata Software Training

Pattaya: March 23-25, to Shanghai China 20-22 July 2010

- System is not stable, not only CCOP but also DMF.
- Dmf move the new building on December 1, 2010
  - Arrange new server room
  - setup working group in DMF
  - cooperate with DMR
  - join with the concessionaire such as PTTEP, Chevron etc



# Thank you



กรมเชื้อเพลิงธรรมชาติ  
DEPARTMENT OF MINERAL FUELS