

Unconventional Uranium Resources in UDEPO

Harikrishnan Tulsidas

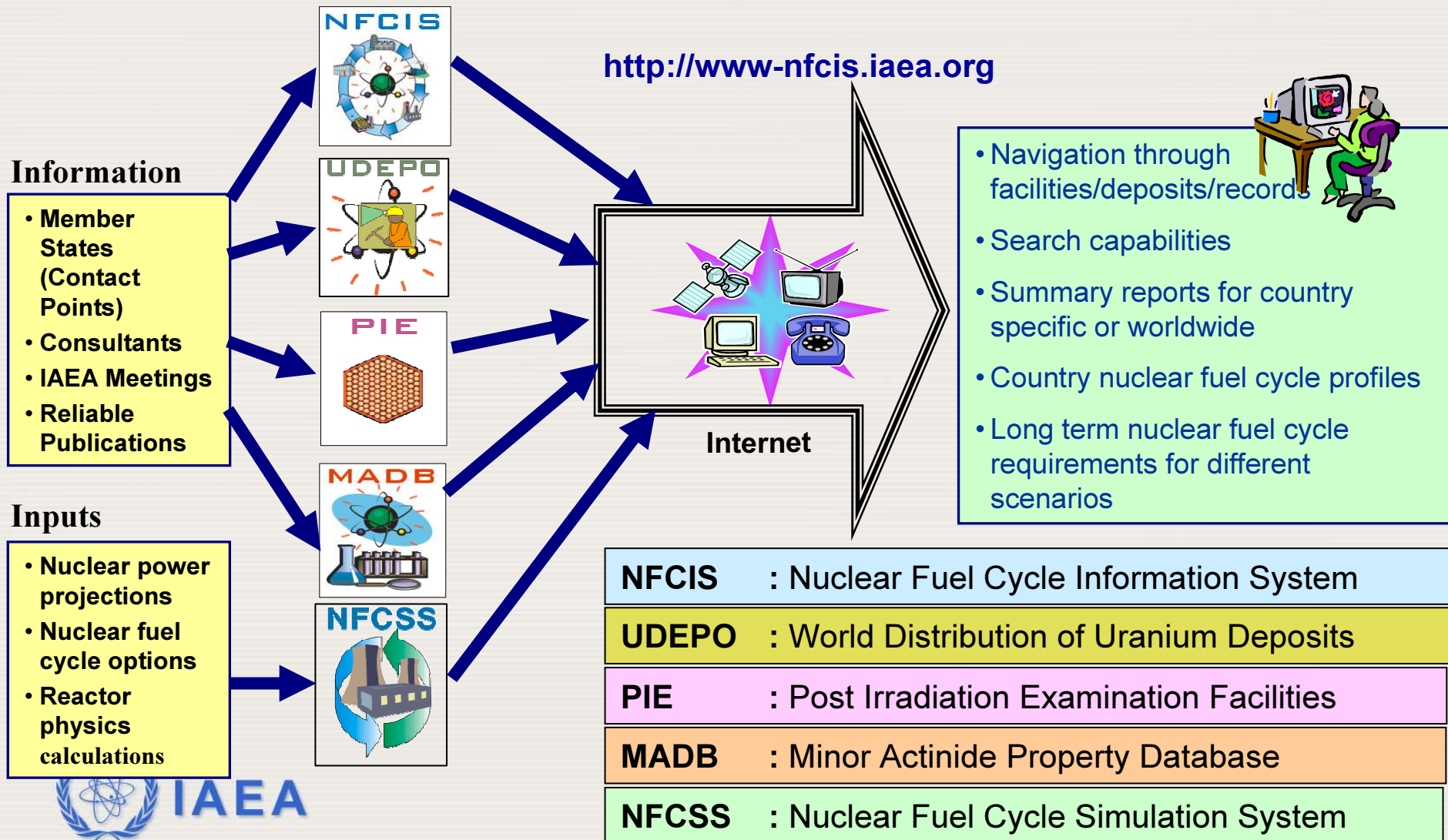
Nuclear Fuel Cycle and Materials Section



IAEA

International Atomic Energy Agency

Integrated Nuclear Fuel Cycle Information System



Single Sign-on

Registration
used for usage
statistics



Integrated Nuclear Fuel Cycle Information Systems

Welcome to the new face of

The Integrated Nuclear Fuel Cycle Information System iNFCIS

The IAEA operates a number of nuclear fuel cycle related databases and a simulation system -- now accessible through iNFCIS -- for long-term projections of nuclear fuel cycle material and service requirements. Their purpose is to provide Member States, the IAEA, and public users with current, consistent, and readily accessible information for planning activities related to the nuclear fuel cycle.

Registration is required to access the data in the system. If you are already registered, please login using the right menu. If you are a new user, please **register**.

Once registered, the system will allow you to view records in the databases based on your selections.

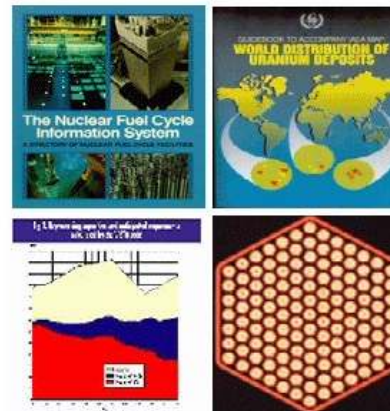
Scope of Data: Data in **iNFCIS** are mainly based on voluntary reports from IAEA Member States, as well as on sources of information published in the public domain. The scope of coverage is global in nature and includes existing and planned civilian facilities, as well as facilities that are reported as no longer operational. Please note that while the IAEA strives to complete the databases with the latest and most accurate information from reliable and authoritative sources, some records may be less than complete and not all countries have reported information. Data is being updated and expanded continuously.

Using our databases in this web site means that you have already seen the [IAEA disclaimer](#) and accepted it.

UserID:
PwD:

If you don't remember your UserID or Password click below!

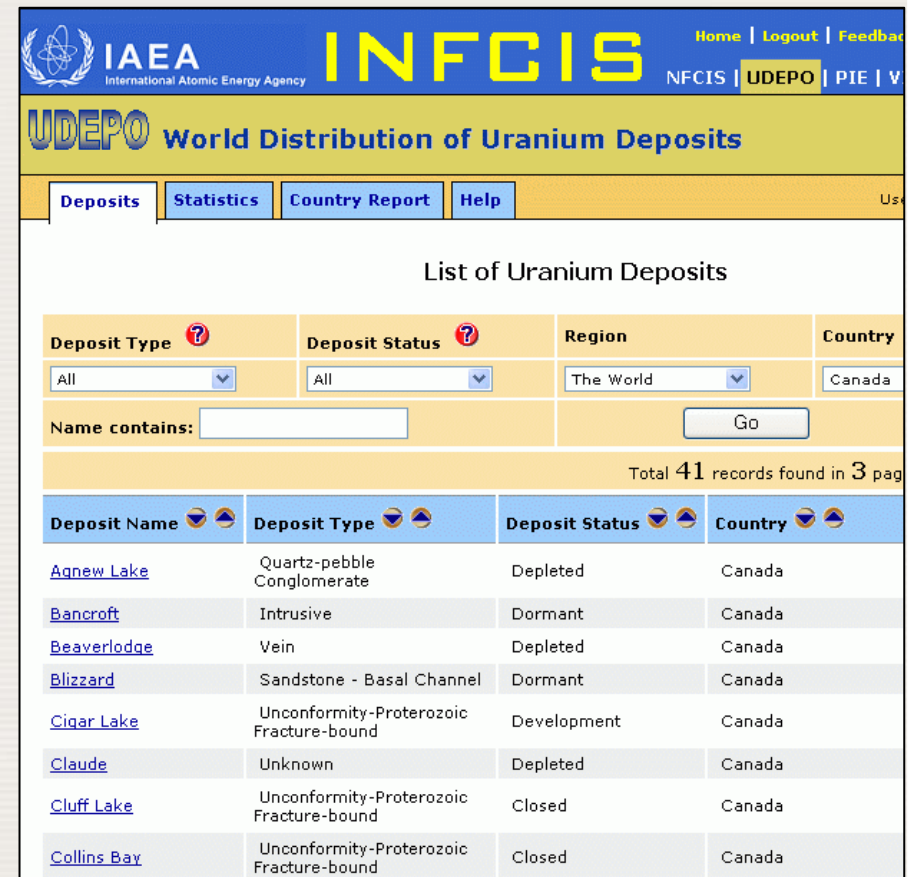
[Send UserID and Password!](#)



UDEPO

World Distribution of Uranium Deposits (UDEPO)

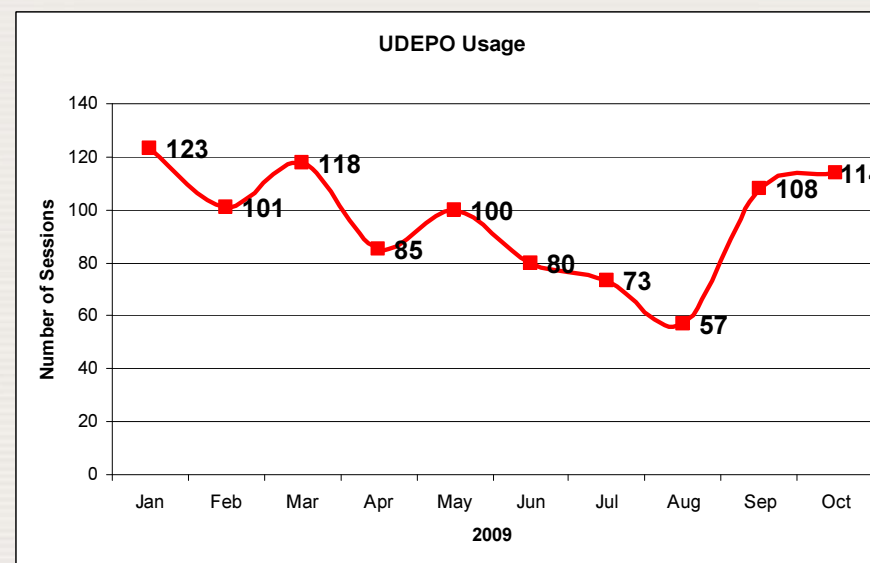
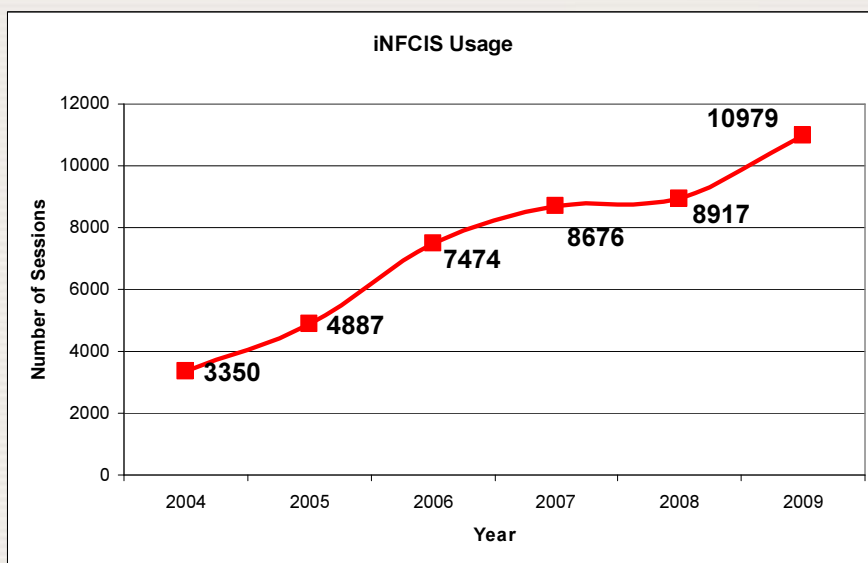
- Database on Uranium Deposits worldwide
- General, Technical and Geological description of the uranium deposits
- Data update through consultants
- 1176 deposits in 71 countries (July 2009)
- Access on the internet with some search and filter capabilities (www-nfcis.iaea.org)
- IAEA-TECDOC-1629 published 2009



The screenshot shows the UDEPO website interface. At the top, there is a blue header with the IAEA logo and the text "IAEA International Atomic Energy Agency". To the right of the header is the "INFCIS" logo and navigation links: "Home | Logout | Feedback". Below the header, there is a yellow banner with the "UDEPO" logo and the text "World Distribution of Uranium Deposits". Below the banner, there is a navigation menu with buttons for "Deposits", "Statistics", "Country Report", and "Help". The main content area is titled "List of Uranium Deposits" and contains a search and filter interface. The filter interface includes dropdown menus for "Deposit Type" (set to "All"), "Deposit Status" (set to "All"), and "Region" (set to "The World"). There is also a "Country" dropdown menu set to "Canada" and a "Name contains:" search box with a "Go" button. Below the filter interface, it says "Total 41 records found in 3 pag". The main table displays a list of uranium deposits with columns for "Deposit Name", "Deposit Type", "Deposit Status", and "Country".

Deposit Name	Deposit Type	Deposit Status	Country
Agnew Lake	Quartz-pebble Conglomerate	Depleted	Canada
Bancroft	Intrusive	Dormant	Canada
Beaverlodge	Vein	Depleted	Canada
Blizzard	Sandstone - Basal Channel	Dormant	Canada
Cigar Lake	Unconformity-Proterozoic Fracture-bound	Development	Canada
Claude	Unknown	Depleted	Canada
Cluff Lake	Unconformity-Proterozoic Fracture-bound	Closed	Canada
Collins Bay	Unconformity-Proterozoic Fracture-bound	Closed	Canada

Usage



UDEPO

Data List

World Distribution of Uranium Deposits (UDEPO) - Microsoft Internet Explorer provided by IAEA

http://www-nfcs.iaea.org/UDEPO/UDEPOMain.asp

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UDEPO World Distribution of Uranium Deposits

Statistics Country Report Help User T. Harikrishnan

List of Uranium Deposits (*)

Deposit Status: All Country: All

Go Reset All Filters

Total 1176 records found in 59 pages. Export To Excel

Country	Deposit Name	Deposit Type	Deposit Status
	Mounana	Sandstone - Tectonic/Lithologic	Depleted
France	Vendée District	Vein	Depleted
Niger	Abakorum	Sandstone - Tabular	Dormant
Algeria	Abankor	Vein	Dormant
United States of America	Abbe	Sandstone - Tabular	Depleted
Canada	Abeta	Quartz-pebble Conglomerate	Dormant
Egypt	Abu Tartur	Phosphorite	Dormant
United States of America	Acadia Claim Group	Sandstone - Roll Front	Exploration
Canada	Ace-Fay-Verna	Vein	Depleted
Spain	Acehuche Ceclavin	Vein	Dormant
Ukraine	Adamovskoye	Other	Dormant
Tajikistan	Adrasman	Vein	Depleted
Kazakhstan	Aqashskoye	Vein	Dormant
Russian Federation	Aqdinskoye	Metasomatite	Dormant
Canada	Agnew Lake	Quartz-pebble Conglomerate	Depleted
Uzbekistan	Aqaron	Sandstone - Roll Front	Operating
Kyrgyzstan	Aqulak	Lignite	Dormant
Iraq	Akashat	Phosphorite	Dormant
Kazakhstan	Akdala	Unknown	Operating
Niger	Akola	Sandstone - Tabular	Operating

Total 1176 records found in 59 pages. Export To Excel

Local intranet 100%



World Distribution of Uranium Deposits (UDEPO)



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UDEPO World Distribution of Uranium Deposits

Deposits | Statistics | Country Report | Help User Mehmet

List of Uranium Deposits (*)

Deposit Type: All Deposit Status: All Country: All

Name contains:

Total 874 records found in 44 pages.

Deposit Name	Deposit Type	Deposit Status	Country
Abakorum	Sandstone - Tabular	Dormant	Uzbekistan
Abakorum	Vein	Dormant	Uzbekistan
Abakorum	Sandstone - Tabular	Dormant	Uzbekistan
Ace-Fav-V	Vein	Dormant	Uzbekistan
Acehucho Cecavín	Unknown	Unknown	Spain
Adamovskoye	Other	Dormant	Uzbekistan
Adrasman	Vein	Dormant	Uzbekistan
Aqashskoe	Vein	Dormant	Uzbekistan
Aqdinskoye	Metasomatite	Dormant	Uzbekistan
Aqnew Lake	Quartz-pebble Conglomerate	Dormant	Uzbekistan
Aqron	Sandstone - Roll Front	Operating	Uzbekistan
Akola	Sandstone - Tabular	Operating	Niger
Akouta Nord	Sandstone - Tabular	Operating	Niger
Akouta Sud	Sandstone - Tabular	Dormant	Niger
Aktau	Sandstone - Roll Front	Dormant	Uzbekistan
Al-Abiad	Phosphorite	Unknown	Jordan
Alameda	Unknown	Unknown	Spain
Alatanqa	Vein	Depleted	Uzbekistan
Alendy	Sandstone - Roll Front	Operating	Uzbekistan
Al-Hassa	Phosphorite	Unknown	Jordan

World Distribution of Uranium Deposits (UDEPO)

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites

Address <http://www-nfcistest.iaea.org/UDEPO/UEPOMain.asp?Region=The%20World&Country=Gabon&Type=All&Status=All&Order=1&Deposit:> Go Links >>

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UDEPO World Distribution of Uranium Deposits

Statistics Country Report Help User Mehmet Ceyhan

UDEPO Deposit Report

Okélobondo Nord

General Info. Technical Info. Geological Info. References Images

General Information	
Deposit Name	Okélobondo Nord
Geological District	Franceville
Geological Region	Haut Ogooué
Political/Geographical Province	Franceville
Country	Gabon
Region/Continent	Africa
Last Update	1/1/05

Done Internet

Deposit details



World Distribution of Uranium Deposits (UDEPO)

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UDEPO World Distribution of Uranium Deposits

Deposits | **Statistics** | Country Report | Help User Mehmet Ceyhan

Select Summary Table!

Deposit Numbers by Country and Type (*)
 Initial Resources by Country and Type (*) (**) (***)
 Deposit Numbers by Region and Type (*)
 Initial Resources by Region and Type (*) (**) (***)








Deposit Type:
 Deposit Status:
 Country:

Name contains:

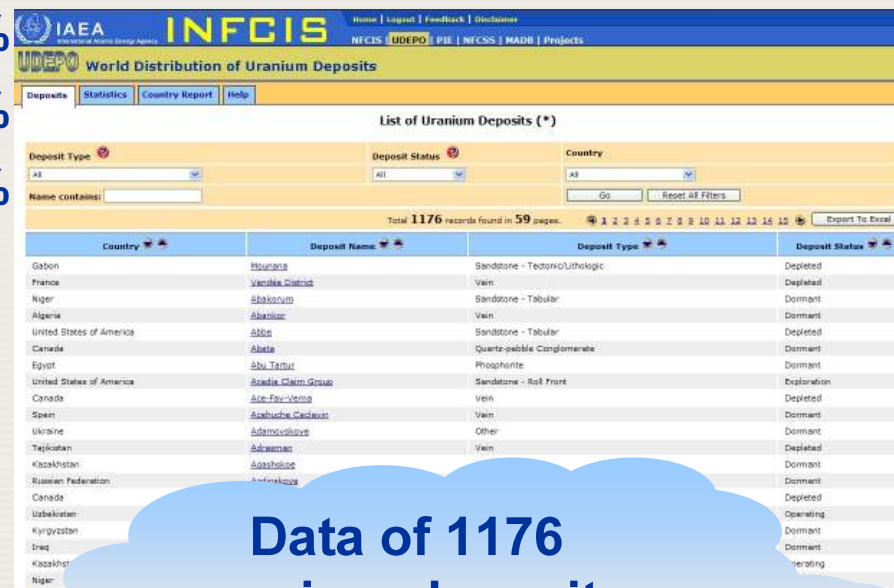
Country	Unconformity	SandStone	Hematit Breccia Complex	Quartz-pebble Congl.	Volcanic	Intrusive	Vein	Metasomatic	Other	Total
Algeria	0	1	0	0	0	0	4	0	0	5
Argentina	0	4	0	0	0	0	2	0	1	7
Australia	23	19	7	0	4	4	1	3	11	72
Bolivia	0	1	0	0	0	0	0	0	0	1
Brazil	0	2	0	0	1	0	0	3	4	10
Bulgaria	0	13	0	0	2	0	8	0	0	23
Cameroon	0	1	0	0	0	0	0	0	0	1
Canada	41	2	1	9	2	2	7	0	4	68
Central African Republic	0	0	0	0	0	0	0	0	1	1
Chile	0	0	0	0	0	0	0	0	4	4
China	0	9	0	0	5	2	5	0	4	25
Czech Republic	0	6	0	0	0	0	13	0	1	20
Democratic Rep. of the Congo	0	0	0	0	0	0	3	0	0	3

Statistics

World distribution of uranium resources

	Red Book	tU	
	Australia	1,243,000	22.7%
	Kazakhstan	817,000	14.9%
	Russia	546,000	10.0%
	South Africa	435,000	8.0%
	Canada	423,000	7.7%
	United States	342,000	6.3%
	Brazil	278,000	5.1%
	Namibia	275,000	5.0%
	Niger	274,000	5.0%
	Others	941,000	17%
	Total	5,469,000	100%

iNFCIS - UDEPO



Data of 1176 uranium deposits from 71 countries

Total 19,193,456 tU

Undiscovered Resources: 7,771,100 tU

IAEA /OECD NEA *Uranium 2007: Resources, Production and Demand*

<http://www-nfcis.iaea.org>

Reserves Vs Grade

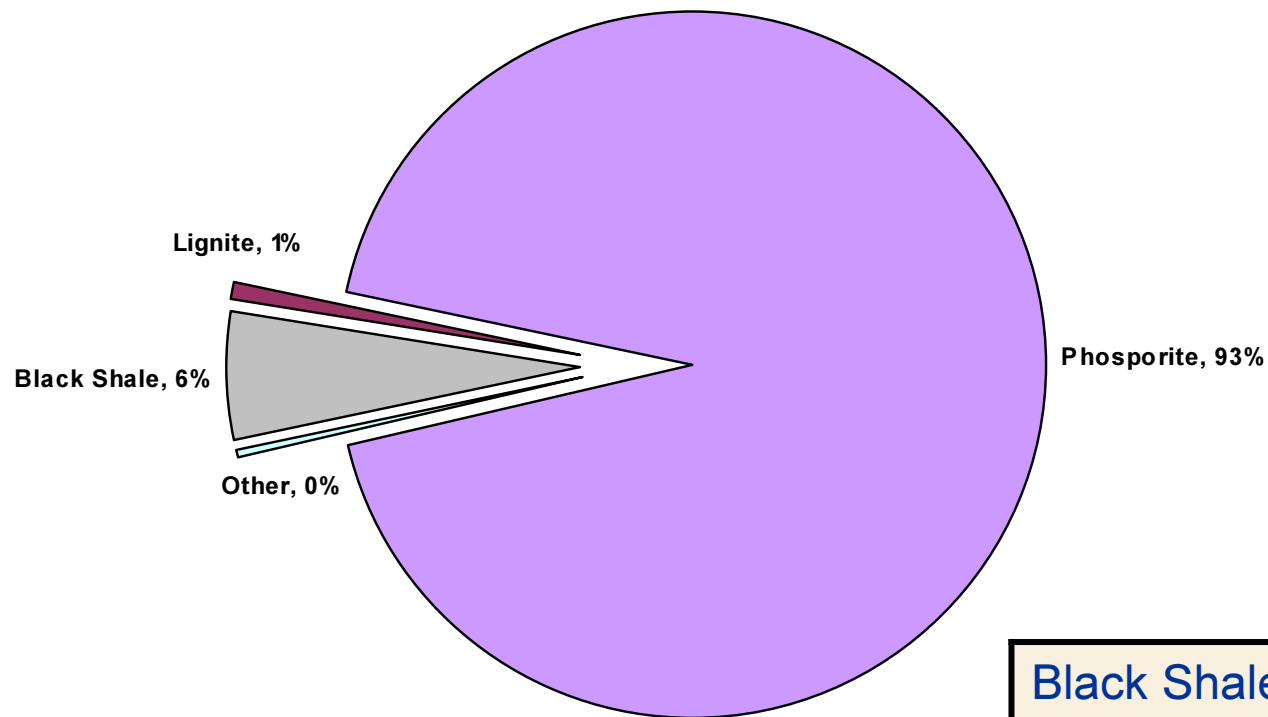
Original Reserves

	< 500	500 - 1,000	1000-10000	10,000 - 100,000	> 100,000	Total
Original Grade						
< 0.03	3	9	65	32	6	115
0.03 - 0.10	13	26	96	31	6	172
0.10 - 1.00	33	106	282	89	7	517
1.00 - 5.00	5	3	13	10	0	31
> 5.00	0	0	1	0	2	3
Grand Total	54	144	457	162	21	838

UDEPO Data

Unconventional Resources

Unconventional U



Black Shale	464,669
Lignite	83,320
Phosporite	7,546,960
Other	30,040
Total	8,124,989

Black Shale

DepID	Name	Deposits	Original Resource	Original Grade	Production
208	Finland	Talvivaara	3000	0.01	0
254	Germany	Ronneburg Ore Field	163750	0.085	112910
420	Poland	Rajsk	5324	0.02	0
421	Poland	Wambierzyce	2300	0.02	0
436	Korea, Rep	Ogcheon Deposits	14800	0.035	0
622	Sweden	Ranstad	254000	0.034	0
625	Turkmenistan	Bailik	5000	0.10	0
819	Uzbekistan	Altyntau	600	0.061	0
827	Uzbekistan	Djantuar	11145	0.131	0
832	Uzbekistan	Koscheka	1850	0.075	0
837	Uzbekistan	Rudnoye	2900	0.097	0
Total			4,64,669		

Lignite

DepID	Name	Deposits	Original Resource	Original Grade	Production
163	China	Daladi (509)	-	-	-
248	Germany	Freital-Gittersee	3690	0.10	3690
315	Kazakhstan	Koldzhat	28000	0.162	-
330	Kazakhstan	Nizhneylyiskoye	33000	0.097	-
360	Kyrgyzstan	Turakovak	3200	0.103	-
463	Russia	Badyelskoye	5430	0.037	-
466	Russia	Belskoje	5000	0.026	-
472	Russia	Briketno-Zheltuhinskoye	5000	0.035	-
537	Russia	Repyovskoye	-	-	-
563	Russia	Tsentralnoye	-	-	-
		Total	83,320		

Phosphorite

DepID	Name	Deposits	Original Resource	Original Grade	Production
150	Chile	Bahia Inglesia	-	0.008	-
153	Chile	Mejillones	-	0.001	-
203	Finland	Nuottijarvi	1000	0.037	-
209	Finland	Vihanti-U	710	0.02	-
277	Jordan	Al-Abiad	16700	0.01	-
278	Jordan	Al-Hassa	13300	0.01	-
279	Jordan	Shidiya - Eshidia	83000	0.007	-
280	Jordan	Ruseita	10350	0.015	-
311	Kazakhstan	Karyntarynskoye	-	-	-
327	Kazakhstan	Melovoye	43820	0.050	40000
342	Kazakhstan	Tasmurunskoye	4180	0.03	-
344	Kazakhstan	Taybagarskoye	8800	0.05	0

Continued ...

Phosphorite

345	Kazakhstan	Tomakskoye	7600	0.056	600	Phosphorite	Yes
371	Mexico	Santo Domingo	51000	0.030	-	Phosphorite	Yes
379	Morocco	Gantour Basin	1206000	0.015	-	Phosphorite	Yes
380	Morocco	Oulad Abdoun Basin	3220000	0.012	-	Phosphorite	Yes
381	Morocco	Meskala Basin	2043000	0.01	-	Phosphorite	Yes
382	Morocco	Oued Eddahab Basin	57000	0.006	-	Phosphorite	Yes
551	Russia	Stepnovskoye	15500	0.050		Phosphorite	Yes
680	United States	Central Florida	225000	0.009	-	Phosphorite	Yes
695	United States	East Florida District	270000	0.009	-	Phosphorite	Yes
757	United States	North Florida District	90000	0.009	-	Phosphorite	Yes
758	United States	Northeast Florida District	180000	0.009	-	Phosphorite	Yes
798	United States	South Florida District	-	-	-	Phosphorite	Yes



Total

7,546,960

Other

DepID	Name	Deposits	Resource	Grade	Production
159	China	Bentou – Sanbaqi (Calc sst)	0	0	0
160	China	Chanziping (Remobilized from sh)	5000	0.20	0
199	Czech Rep	Vnitrosudetska Panev (Sst)	2500	0.07	0
269	India	Tummalapalle – Rachakuntapalle (Lst)	12555	0.03	
411	Peru	Colquijirca (Lst)	500	0.20	0
418	Poland	Okrzeszyn (Sst)	1500	0.07	0
633	Ukraine	Adamovskoye (Bitumen)	2060	0.10	0
634	Ukraine	Berekskoye (Bitumen)	650	0.153	0
636	Ukraine	Chervonoyarskoye	510	0.056	0
639	Ukraine	Krasnooskol'Skoye (Bitumen)	670	0.142	0
641	Ukraine	Markovskoye	2355	0.057	0
645	Ukraine	Novogoor'Evskoye	1740	0.015	0
		Total	30,040		

Tecdoc

http://www-pub.iaea.org/MTCD/publications/PDF/TE_1629_web.pdf

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IAEA-TECDOC-1629

*World Distribution
of Uranium Deposits (UDEPO)
with Uranium Deposit Classification*

2009 Edition



Coming up ...

- Content updates to be more frequent
- More images: maps, sections and photographs
- Web GIS, Google map integration
- New feature rich Web 2.0 technology

You can reach me at ...

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Thanks



Yellow Cake