

# 2014 Domestic Uranium Production Report

April 2015















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# **Contacts**

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## **Preface**

The U.S. Energy Information Administration (EIA) reports detailed data spanning 2003 through 2014 and summary data back to 1993 on U.S. uranium production activities in this report, 2014 Domestic Uranium Production Report.

Data in this report are based primarily on information reported on Form EIA-851A, "Domestic Uranium Production Report (Annual)" and some information reported on Form EIA-858, "Uranium Marketing Annual Survey." Form EIA-851A survey collects data on uranium milling and in-situ-leach processing, feed sources, mining, employment, drilling, expenditures, and reserve estimates. Form EIA-858 survey includes data collected on contracts and deliveries.

Prior editions of this report may be found on the EIA website at <a href="http://www.eia.gov/nuclear/reports.cfm">http://www.eia.gov/nuclear/reports.cfm</a>.

Definitions for terms used in this report can be found in EIA's Energy Glossary: <a href="http://www.eia.doe.gov/glossary/">http://www.eia.doe.gov/glossary/</a>.

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## **Drilling**

Total uranium drilling was 1,752 holes covering 1.3 million feet, 67% fewer holes than in 2013 and the lowest since 2004. Expenditures for uranium drilling in the United States were \$28 million in 2014, a decrease of 43% compared with 2013.

## Mining, production, shipments, and sales

U.S. uranium mines produced 4.9 million pounds  $U_3O_8$  in 2014, 7% more than in 2013. Two underground mines produced uranium ore during 2014, one less than during 2013. Uranium ore from underground mines is stockpiled and shipped to a mill, to be milled into uranium concentrate (a yellow or brown powder). Additionally, eight in-situ-leach (ISL) mining operations produced solutions containing uranium in 2014, one more than in 2013, that was processed into uranium concentrate at ISL plants. Overall, there were 10 mines that operated during part or all of 2014.

Total production of U.S. uranium concentrate<sup>1</sup> in 2014 was 4.9 million pounds U<sub>3</sub>O<sub>8</sub>, 5% more than in 2013, from eight facilities: one mill in Utah (White Mesa Mill) and seven ISL plants (Alta Mesa Project, Crow Butte Operation, Hobson ISR Plant/La Palangana, Lost Creek Project, Nichols Ranch ISR Project, Smith Ranch-Highland Operation, and Willow Creek Project). The Nichols Ranch ISR Project started producing in 2014. The seven ISL plants are located in Nebraska, Texas and Wyoming.

Total shipments of uranium concentrate from U.S. mill and ISL plants were 4.6 million pounds  $U_3O_8$  in 2014, 1% less than in 2013. U.S. producers sold 4.7 million pounds  $U_3O_8$  of uranium concentrate in 2014 at a weighted-average price of \$39.17 per pound  $U_3O_8$ .

# Facility status (mills and in-situ-leach plants)

At the end of 2014, the White Mesa Mill in Utah was operating-processing alternate feed with a capacity of 2,000 short tons of ore per day. Shootaring Canyon Uranium Mill in Utah and Sweetwater Uranium Project in Wyoming were on standby with a total capacity of 3,750 short tons of ore per day. There is one mill planned for Colorado (Pinon Ridge Mill) and one heap leach plant planned for Wyoming (Sheep Mountain).

At the end of 2014, seven U.S. uranium ISL plants were operating with a combined capacity of 15.3 million pounds  $U_3O_8$  per year (Crow Butte Operation in Nebraska; Alta Mesa Project and Hobson ISR Plant/La Palangana in Texas; Lost Creek Project, Nichols Ranch ISR Project, Smith Ranch-Highland Operation, and Willow Creek Project in Wyoming). The Ross Central Processing Plant was under construction in Wyoming. There are seven ISL plants planned in New Mexico, South Dakota, Texas, and Wyoming.

<sup>&</sup>lt;sup>1</sup> A yellow or brown powder obtained by the milling of uranium ore, processing of in situ leach mining solutions, or as a byproduct of phosphoric acid production.

#### **Employment**

Total employment in the U.S. uranium production industry was 787 person-years in 2014, a decrease of 32% from the 2013 total and the lowest since 2006. Exploration employment was 86 person-years, a 42% decrease compared with 2013. Mining employment was 246 person-years, and decreased 37% from 2013. Milling and processing employment was 293 person-years, a 30% decrease from 2013. Reclamation employment decreased 19% to 161 person-years from 2013 to 2014. Uranium production industry employment for 2014 was in 9 States: Arizona, Colorado, Nebraska, New Mexico, Oregon, Texas, Utah, Washington, and Wyoming.

#### **Expenditures**

Total expenditures for land, exploration, drilling, production, and reclamation were \$240 million in 2014, 22% less than in 2013. Expenditures for U.S. uranium production, including facility expenses, were the largest category of expenditures at \$138 million in 2014 and were down by 18% from the 2013 level. Uranium exploration expenditures were \$11 million and decreased 50% from 2013 to 2014. Expenditures for land were \$12 million in 2014, a 21% decrease compared with 2013. Reclamation expenditures were \$52 million, a 5% decrease compared with 2013.

#### **Reserve estimates**

For end of 2014, estimated uranium reserves were 45 million pounds  $U_3O_8$  at a maximum forward cost of up to \$30 per pound. At up to \$50 per pound, estimated reserves were 163 million pounds  $U_3O_8$ . At up to \$100 per pound, estimated reserves were 359 million pounds  $U_3O_8$ . At the end of 2014, estimated uranium reserves for mines in production were 19 million pounds  $U_3O_8$  at a maximum forward cost of up to \$50 per pound. Estimated reserves for properties in development drilling and under development for production were 38 million pounds  $U_3O_8$  at a maximum forward cost of up to \$50 per pound.

The uranium reserve estimates presented here cannot be compared with the much larger historical data set of uranium reserves published in the July 2010 report <u>U.S. Uranium Reserves Estimates</u>. Those reserve estimates were made by EIA based on data collected by EIA and data developed by the National Uranium Resource Evaluation (NURE) program, operated out of Grand Junction, Colorado, by DOE and predecessor organizations. The EIA data covered approximately 200 uranium properties with reserve estimates, collected from 1984 through 2002. The NURE data covered approximately 800 uranium properties with reserve estimates, developed from 1974 through 1983. Although the 2014 data collected by the Form EIA-851A survey covers a much smaller set of properties than the earlier EIA data and NURE data, EIA believes that within its scope the EIA-851A data provides more reliable estimates of the uranium recoverable at the specified forward cost than estimates derived from 1974 through 2002. In particular, this is because the NURE data has not been comprehensively updated in many years and is no longer a current data source.

Table 1. U.S. uranium drilling activities, 2003-14

	Exploratio	n Drilling	Developme	ent Drilling	Exploration and Development Drilling		
Year	Number of Holes	Feet (thousand)	Number of Holes	Feet (thousand)	Number of Holes	Feet (thousand)	
2003	NA	NA	NA	NA	W	W	
2004	W	W	W	W	2,185	1,249	
2005	W	W	W	W	3,143	1,668	
2006	1,473	821	3,430	1,892	4,903	2,713	
2007	4,351	2,200	4,996	2,946	9,347	5,146	
2008	5,198	2,543	4,157	2,551	9,355	5,093	
2009	1,790	1,051	3,889	2,691	5,679	3,742	
2010	2,439	1,460	4,770	3,444	7,209	4,904	
2011	5,441	3,322	5,156	3,003	10,597	6,325	
2012	5,112	3,447	5,970	3,709	11,082	7,156	
2013	1,231	919	4,013	2,926	5,244	3,845	
2014	W	W	W	W	1,752	1,299	

NA = Not available.

W = Data withheld to avoid disclosure of individual company data.

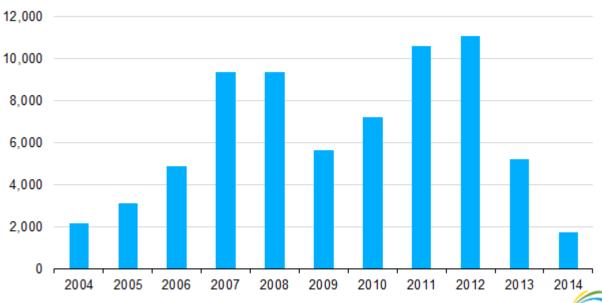
Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production

Report" (2003-14).

Figure 1. U.S. uranium drilling by number of holes, 2003-14

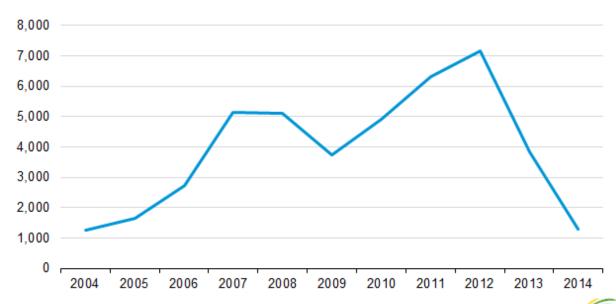
number of holes



Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2004-14).

Figure 2. U.S. uranium drilling in footage, 2004-14

thousand feet



Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2004-14).

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Table 2. U.S. uranium mine production and number of mines and sources, 2003-14

<b>Production / Mining Method</b>	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Underground												
(estimated contained thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	W	W	W	W	W	W	W	W	W
Open Pit												
(estimated contained thousand pounds U <sub>3</sub> O <sub>8</sub> )	0	0	0	0	0	0	0	0	0	0	0	0
In-Situ Leaching												
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	2,681	4,259	W	W	W	W	W	W	W	W
Other <sup>1</sup>												
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	W	W	W	W	W	W	W	W	W
<b>Total Mine Production</b>												
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	E2,200	2,452	3,045	4,692	4,541	3,879	4,145	4,237	4,114	4,335	4,577	4,912
Number of Operating Mines												
Underground	1	2	4	5	6	10	14	4	5	6	3	2
Open Pit	0	0	0	0	0	0	0	0	0	0	0	0
In-Situ Leaching	2	3	4	5	5	6	4	4	5	5	7	8
Other Sources <sup>1</sup>	1	1	2	1	1	1	2	1	1	1	2	1
<b>Total Mines and Sources</b>	4	6	10	11	12	17	20	9	11	12	12	11

<sup>&</sup>lt;sup>1</sup>Other includes, in various years, mine water, mill site cleanup and mill tailings, and well field restoration as sources of uranium. E = Estimated data.

Notes: Totals may not equal sum of components because of independent rounding. Table does not include byproduct production and sources. The 2003 annual production amount was estimated by rounding to the nearest 200,000 pounds to avoid disclosure of individual company data.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-14).

W = Data withheld to avoid disclosure of individual company data.

Table 3. U.S. uranium concentrate production, shipments, and sales, 2003-14

Activity at U.S. Mills and In-Situ-

Activity at 0.3. Willis and Ill-3itu-												
Leach Plants	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Estimated contained U <sub>3</sub> O <sub>8</sub> (thousand p	oounds)											
Ore from Underground Mines												
and Stockpiles Fed to Mills <sup>1</sup>	0	W	W	W	0	W	W	W	W	W	W	W
Other Feed Materials <sup>2</sup>	W	W	W	W	W	W	W	W	W	W	W	W
Total Mill Feed	W	W	W	W	w	W	W	W	W	W	W	W
<b>Uranium Concentrate Produced at U.S</b>	. Mills											
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	W	W	W	W	W	W	W	W	W
<b>Uranium Concentrate Produced at U.S</b>	. In-Situ-Lea	ach Plants	3									
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	W	W	W	W	W	W	W	W	W
<b>Total Uranium Concentrate Production</b>	n											
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	E2,000	2,282	2,689	4,106	4,534	3,902	3,708	4,228	3,991	4,146	4,659	4,891
<b>Total Uranium Concentrate Shipped fr</b>	om U.S. Mi	lls and In	Situ-Lead	ch Plants								
(thousand pounds U <sub>3</sub> O <sub>8</sub> )	E1,600	2,280	2,702	3,838	4,050	4,130	3,620	5,137	4,000	3,911	4,655	4,593
<b>Total Uranium Concentrate Sales by U</b>	.S. Produce	rs <sup>3</sup>										
Deliveries (thousand pounds U <sub>3</sub> O <sub>8</sub> )	W	W	W	3,786	3,602	3,656	2,044	2,684	2,870	3,630	4,447	4,746
Weighted-Average Price (dollars per												
pound U <sub>3</sub> O <sub>8</sub> )	W	W	W	28.98	42.11	43.81	36.61	37.59	52.36	49.63	44.65	39.17

<sup>&</sup>lt;sup>1</sup>Uranium ore "Fed to Mills" in any year can include: ore mined and shipped to a mill during the same year, ore that was mined during a prior year and later shipped from mine-site stockpiles, and/or ore obtained from drawdowns of stockpiles maintained at a mill site.

Notes: The 2003 annual amounts were estimated by rounding to the nearest 200,000 pounds to avoid disclosure of individual company data. Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-14) and Form EIA-858, "Uranium Marketing Annual Survey" (2003-14).

<sup>&</sup>lt;sup>2</sup>Includes for various years uranium from mill cleanup, mine water, tailings water, and other materials.

<sup>&</sup>lt;sup>3</sup>Sales of U.S-origin uranium only.

E = Estimated data.

W = Data withheld to avoid disclosure of individual company data.

Table 4. U.S. uranium mills by owner, location, capacity, and operating status at end of the year, 2010-14

		County, State	Capacity	acity Operating Status at End of the Year						
Owner	Mill and <i>Heap</i> <i>Leach<sup>1</sup> Facility</i> Name	(existing and planned locations)	anned of ore per		2011	2012	2013	2014		
EFR White Mesa LLC	White Mesa Mill	San Juan, Utah	2,000	Operating	Operating	Operating	Operating- Processing Alternate Feed	Operating- Processing Alternate Feed		
Energy Fuels Resources Corp	Pinon Ridge Mill	Montrose, Colorado	500	Developing	Permitted And Licensed	Partially Permitted And Licensed	Permitted And Licensed	Permitted And Licensed		
Energy Fuels Wyoming Inc	Sheep Mountain	Fremont, Wyoming	725	-	-		Undeveloped	Undeveloped		
Kennecott Uranium Company/Wyoming Coal Resource Company	Sweetwater Uranium Project	Sweetwater, Wyoming	3,000	Standby	Standby	Standby	Standby	Standby		
Uranium One Americas, Inc.	Shootaring Canyon Uranium Mill	Garfield, Utah	750	Standby	Standby	Standby	Standby	Standby		

#### Total Capacity: 6,975

Notes: Capacity for 2014. An operating status of "Operating" indicates the mill usually was producing uranium concentrate at the end of the period. Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2010-14).

<sup>- =</sup> No data reported.

<sup>&</sup>lt;sup>1</sup> Heap leach solutions: The separation, or dissolving-out from mined rock, of the soluble uranium constituents by the natural action of percolating a prepared chemical solution through mounded (heaped) rock material. The mounded material usually contains low grade mineralized material and/or waste rock produced from open pit or underground mines. The solutions are collected after percolation is completed and processed to recover the valued components.

Table 5. U.S. uranium in-situ-leach plants by owner, location, capacity, and operating status at end of the year, 2010-14

		County, State	Production Capacity		Operating	g Status at End of t	he Vear	
In-Situ-Leach Plant Owner	In-Situ-Leach Plant Name	(existing and planned locations)	(pounds U <sub>3</sub> O <sub>8</sub> per year)	2010	2011	2012	2013	2014
AUCLLC	Reno Creek	Campbell, Wyoming	<u>-</u>	<u>-</u>	_	<u>-</u>	Developing	Developing
Cameco	Crow Butte Operation	Dawes, Nebraska	1,000,000	Operating	Operating	Operating	Operating	Operating
				Partially	Partially	Partially	Partially	Partially
		McKinley, New		Permitted And	Permitted And	Permitted And	Permitted And	Permitted And
Hydro Resources, Inc.	Church Rock	Mexico	1,000,000	Licensed	Licensed	Licensed	Licensed	Licensed
				Partially	Partially	Partially	Partially	Partially
		McKinley, New		Permitted And	Permitted And	Permitted And	Permitted And	Permitted And
Hydro Resources, Inc.	Crownpoint	Mexico	1,000,000	Licensed	Licensed	Licensed	Licensed	Licensed
					Partially			
		Sweetwater,			Permitted And	Under		
Lost Creek ISR, LLC	Lost Creek Project	Wyoming	2,000,000	Developing	Licensed	Construction	Operating	Operating
Mestena Uranium LLC	Alta Mesa Project	Brooks, Texas	1,500,000	Producing	Producing	Producing	Producing	Producing
Power Resources, Inc.								
dba Cameco	Smith Ranch-Highland							
Resources	Operation	Converse, Wyoming	5,500,000	Operating	Operating	Operating	Operating	Operating
		Fall River and						Partially
		Custer, South						Permitted And
Powertech USA	Dewey Burdock Project	,	1,000,000	Undeveloped	Undeveloped	Developing	Developing	Licensed
South Texas Mining	Hobson ISR Plant	V T	1 000 000	0	0	0	0	0
Venture	HODSON ISK Plant	Karnes, Texas	1,000,000	Operational	Operating	Operating	Operating	Operating
South Texas Mining								
Venture	La Palangana	Duval, Texas	1,000,000	Operating	Operating	Operating	Operating	Operating
						Partially	Partially	
						Permitted And	Permitted And	Under
Strata Energy Inc	Ross CPP	Crook, Wyoming	375,000	<del>-</del>	Developing	Licensed	Licensed	Construction
URI, Inc.	Kingsville Dome	Kleberg, Texas	1,000,000	Standby	Standby	Standby	Restoration	Restoration
URI, Inc.	Rosita	Duval, Texas	1,000,000	Standby	Standby	Standby	Restoration	Restoration
URI, Inc.	Vasquez	Duval, Texas	800,000	Restoration	Restoration	Restoration	Restoration	Restoration
_				Partially				
Uranerz Energy	Nichols Ranch ISR	Johnson and		Permitted And	Under	Under	Under	
Corporation	Project	Campbell, Wyoming	2,000,000	Licensed	Construction	Construction	Construction	Producing
				Partially	Partially			
	Goliad ISR Uranium			Permitted And	Permitted And	Permitted And	Permitted And	Permitted And
Uranium Energy Corp.	Project	Goliad, Texas	1,000,000	Licensed	Licensed	Licensed	Licensed	Licensed
Uranium One		Sweetwater,						
Americas, Inc.	Jab and Antelope	Wyoming	2,000,000	Developing	Developing	Developing	Developing	Developing
Uranium One		_		Permitted And	Permitted And		Permitted And	
Americas, Inc.	Moore Ranch	Campbell, Wyoming	500,000	Licensed	Licensed	Licensed	Licensed	Licensed
	Willow Creek Project							
	(Christensen Ranch	Campbell and						
Uranium One USA, Inc.	and Irigaray)	Johnson, Wyoming	1,300,000	Operational	Producing	Producing	Producing	Operating
Total Production								
Capacity:			24,975,000					
			, ,					

<sup>-=</sup> No data reported

Notes: Production capacity for 2014. An operating status of "Operating" indicates the in-situ-leach plant usually was producing uranium concentrate at the end of the period. Hobson ISR Plant processed uranium concentrate that came from La Palangana. Hobson and La Palangana are part of the same project. ISR stands for in-situ recovery. Christensen Ranch and Irigaray are part of the Willow Creek Project. Uranerz Energy has a tolling arrangement with Cameco Resources. Uranium is first processed at the Nichols Ranch plant and then transported to the Smith Ranch-Highland Operation plant for final processing into Uranerz's uranium concentrate. CPP stands for central processing plant.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2010-14).

Table 6. Employment in the U.S. uranium production industry by category, 2003-14

person-years

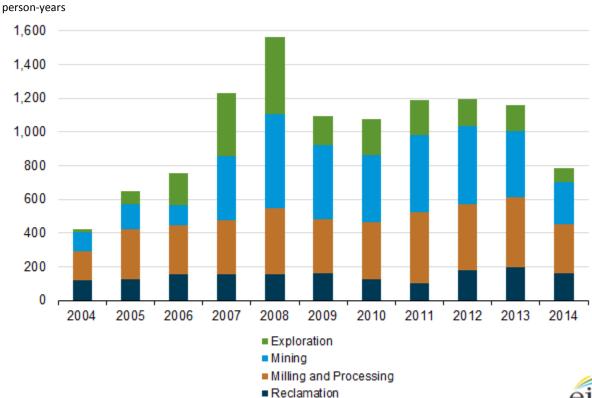
Year	Exploration	Mining	Milling	Processing	Reclamation	Total
2003	W	W	W	W	117	321
2004	18	108	W	W	121	420
2005	79	149	142	154	124	648
2006	188	121	W	W	155	755
2007	375	378	107	216	155	1,231
2008	457	558	W	W	154	1,563
2009	175	441	W	W	162	1,096
2010	211	400	W	W	125	1,073
2011	208	462	W	W	102	1,191
2012	161	462	W	W	179	1,196
2013	149	392	W	W	199	1,156
2014	86	246	W	W	161	787

W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-14).

Figure 3. Employment in the U.S. uranium production industry by category, 2004-14



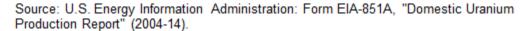




Table 7. Employment in the U.S. uranium production industry by state, 2003-14

person-years

State(s)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Wyoming	134	139	181	195	245	301	308	348	424	512	531	416
Colorado and Texas	48	140	269	263	557	696	340	292	331	248	198	105
Nebraska and New Mexico	92	102	123	160	149	160	159	134	127	W	W	W
Arizona, Utah, and Washington	47	40	75	120	245	360	273	281	W	W	W	W
Alaska, Michigan, Nevada, and South Dakota	0	0	0	16	25	30	W	W	W	W	W	0
California, Montana, North Dakota, Oklahoma, Oregon, and Virginia	0	0	0	0	9	17	W	W	W	W	W	W
Total	321	420	648	755	1,231	1,563	1,096	1,073	1,191	1,196	1,156	787

W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-14).

Table 8. U.S. uranium expenditures, 2003-14

million dollars

		_	Land and Other <sup>3</sup>							
Year	Drilling <sup>1</sup>	Production <sup>2</sup>	Total Land and Other	Land	Exploration	Reclamation	Total Expenditures			
2003	W	W	31.3	NA	NA	NA	W			
2004	10.6	27.8	48.4	NA	NA	NA	86.9			
2005	18.1	58.2	59.7	NA	NA	NA	136.0			
2006	40.1	65.9	115.2	41.0	23.3	50.9	221.2			
2007	67.5	90.4	178.2	77.7	50.3	50.2	336.2			
2008	81.9	221.2	164.4	65.2	50.2	49.1	467.6			
2009	35.4	141.0	104.0	17.3	24.2	62.4	280.5			
2010	44.6	133.3	99.5	20.2	34.5	44.7	277.3			
2011	53.6	168.8	96.8	19.6	43.5	33.7	319.2			
2012	66.6	186.9	99.4	16.8	33.3	49.3	352.9			
2013	49.9	168.2	90.6	14.6	21.6	54.4	308.7			
2014	28.2	137.6	74.0	11.6	10.7	51.7	239.7			

NA = Not available. W = Data withheld to avoid disclosure of individual company data.

Notes: Expenditures are in nominal U.S. dollars. Totals may not equal sum of components because of independent rounding. Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2003-14).

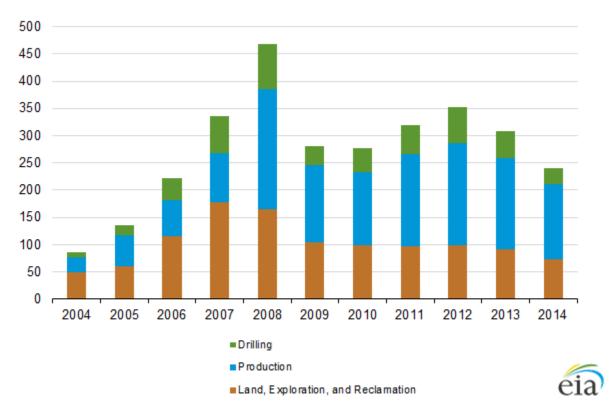
<sup>&</sup>lt;sup>1</sup> Drilling: All expenditures directly associated with exploration and development drilling.

<sup>&</sup>lt;sup>2</sup> Production: All expenditures for mining, milling, processing of uranium, and facility expense.

<sup>&</sup>lt;sup>3</sup> Land and Other: All expenditures for land; geological research; geochemical and geophysical surveys; costs incurred by field personnel in the course of exploration, reclamation and restoration work; and overhead and administrative charges directly associated with supervising and supporting field activities.

Figure 4. U.S. uranium expenditures, 2004-14

million dollars



Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2004-14).

Table 9. Summary production statistics of the U.S. uranium industry, 1993-2014

Year	Exploration and Development Surface Drilling  (million feet)	Exploration and Development Drilling Expenditures  (million dollars)	Mine Production of Uranium (million pounds U <sub>3</sub> O <sub>8</sub> )	Uranium Concentrate Production (million pounds U <sub>3</sub> O <sub>8</sub> )	Uranium Concentrate Shipments (million pounds U <sub>3</sub> O <sub>8</sub> )	Employment
1993	1.1	5.7	2.1	3.1	3.4	(person-years) 871
1994	0.7	1.1	2.5	3.4	6.3	980
1995	1.3	2.6	3.5	6.0	5.5	1,107
1996	3.0	7.2	4.7	6.3	6.0	1,118
1997	4.9	20.0	4.7	5.6	5.8	1,097
1998	4.6	18.1	4.8	4.7	4.9	1,120
1999	2.5	7.9	4.5	4.6	5.5	848
2000	1.0	5.6	3.1	4.0	3.2	627
2001	0.7	2.7	2.6	2.6	2.2	423
2002	W	W	2.4	2.3	3.8	426
E2003	W	W	2.2	2.0	1.6	321
2004	1.2	10.6	2.5	2.3	2.3	420
2005	1.7	18.1	3.0	2.7	2.7	648
2006	2.7	40.1	4.7	4.1	3.8	755
2007	5.1	67.5	4.5	4.5	4.0	1,231
2008	5.1	81.9	3.9	3.9	4.1	1,563
2009	3.7	35.4	4.1	3.7	3.6	1,096
2010	4.9	44.6	4.2	4.2	5.1	1,073
2011	6.3	53.6	4.1	4.0	4.0	1,191
2012	7.2	66.6	4.3	4.1	3.9	1,196
2013	3.8	49.9	4.6	4.7	4.7	1,156
2014	1.3	28.2	4.9	4.9	4.6	787

<sup>&</sup>lt;sup>1</sup> Expenditures are in nominal U.S. dollars.

Note: The 2003 annual production and shipment amounts were estimated by rounding to the nearest 200,000 pounds to avoid disclosure of individual company data.

Source: U.S. Energy Information Administration: 1993-2002-Uranium Industry Annual 2002 (May 2003), Table H1 and Table 2. 2003-14-Form EIA-851A, "Domestic Uranium Production Report" (2003-14).

E = Estimated data, except for employment.

W = Data withheld to avoid disclosure of individual company data.

Figure 5. U.S. mine production of uranium, 1993-2014

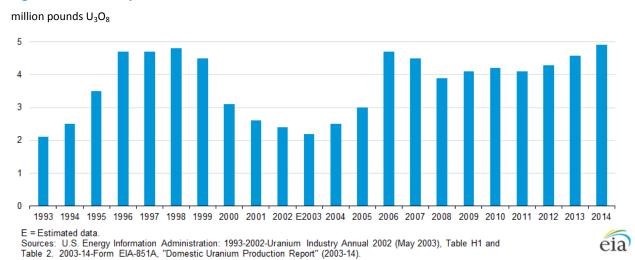
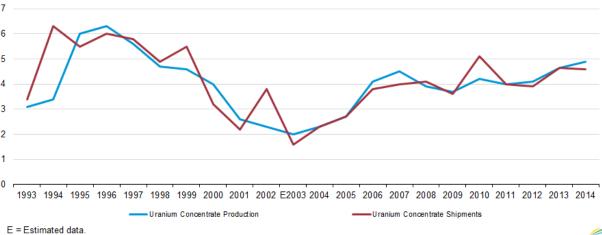


Figure 6. U.S. uranium concentrate production and shipments, 1993-2014

million pounds U<sub>3</sub>O<sub>8</sub>

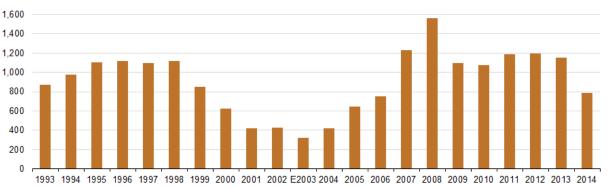


Cources: U.S. Energy Information Administration: 1993-2002-Uranium Industry Annual 2002 (May 2003), Table H1 and Table 2. 2003-14-Form EIA-851A, "Domestic Uranium Production Report" (2003-14).



Figure 7. Employment in the U.S. production industry, 1993-2014

#### person-years



Sources: U.S. Energy Information Administration: 1993-2002-Uranium Industry Annual 2002 (May 2003), Table H1 and Table 2. 2003-14-Form EIA-851A, "Domestic Uranium Production Report" (2003-14).

Table 10. Uranium reserve estimates at the end of 2013 and 2014

million pounds U<sub>3</sub>O<sub>8</sub>

	End of 2013			End of 2014				
	Forward Cost <sup>2</sup>							
Uranium Reserve Estimates <sup>1</sup> by Mine and Property Status, Mining Method, and State(s)	\$0 to \$30 per pound	\$0 to \$50 per pound	\$0 to \$100 per pound	\$0 to \$30 per pound	\$0 to \$50 per pound	\$0 to \$100 per pound		
Properties with Exploration Completed, Exploration Continuing, and Only Assessment Work	W	W	130.7	W	W	154.6		
Properties Under Development for Production and Development Drilling	W	31.8	W	W	38.2	W		
Mines in Production	W	19.6	W	W	19.2	W		
Mines Closed Temporarily, Closed Permanently, and Mined Out	W	W	135.2	W	W	W		
Total	46.6	w	337.6	45.3	163.5	359.3		
In-Situ Leach Mining	W	W	124.1	W	W	150.8		
Underground and Open Pit Mining	W	W	213.5	W	W	208.5		
Total	46.6	w	337.6	45.3	163.5	359.3		
Arizona, New Mexico and Utah	0	W	189.1	0	W	212.3		
Colorado, Nebraska and Texas	W	W	40.6	W	W	40.3		
Wyoming	W	W	107.9	W	W	106.8		
Total	46.6	W	337.6	45.3	163.5	359.3		

W = Data withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration: Form EIA-851A, "Domestic Uranium Production Report" (2013-14).

<sup>&</sup>lt;sup>1</sup> Reserve estimates on 74 mines and properties for end of 2013 and on 75 mines and properties for end of 2014. These uranium reserve estimates cannot be compared with the much larger historical data set of uranium reserves that were published in the July 2010 report U.S. Uranium Reserves Estimates at http://www.eia.gov/cneaf/nuclear/page/reserves/ures.html. Reserves, as reported here, do not necessarily imply compliance with U.S. or Canadian government definitions for purposes of investment disclosure.

<sup>&</sup>lt;sup>2</sup> Forward Cost: The operating and capital costs still to be incurred in the production of uranium from in-place reserves. By using forward costing, estimates for reserves for ore deposits in differing geological settings and status of development can be aggregated and reported for selected cost categories. Included are costs for labor, materials, power and fuel, royalties, payroll taxes, insurance, and applicable general and administrative costs. Excluded from forward cost estimates are prior expenditures, if any, incurred for property acquisition, exploration, mine development, and mill construction, as well as income taxes, profit, and the cost of money. Forward costs are neither the full costs of production nor the market price at which the uranium, when produced, might be sold.