

2017–2018 Minerals Yearbook

LAOS

THE MINERAL INDUSTRY OF LAOS

By Ji Won Moon

In 2017 and 2018, the production of mineral commodities—notably coal, copper, gold, limestone, potash, and silver—represented only a minor part of the economy of Laos (Bank of the Lao PDR, 2019, p. 20; Lao Statistics Bureau, 2019, p. 78, 79, 85, 142–144; Xinhua News Agency, 2019). The legislative framework for the mineral sector in Laos is provided by the Law on Minerals (No. 04/NA), which was enacted in 2008 and amended in 2012 (No. 02/NA) and 2017. Data on mineral production are in table 1. Table 2 is a list of major mineral industry facilities. More-extensive coverage of the mineral industry of Laos can be found in previous editions of the U.S. Geological Survey Minerals Yearbook, volume III,

Area Reports—International—Asia and the Pacific, which are available at https://www.usgs.gov/centers/nmic/asia-and-pacific.

References Cited

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Lao Statistics Bureau, 2019, Statistical yearbook 2018: Vientiane, Laos, Ministry of Planning and Investment, July, 174 p. (Accessed April 22, 2020, at https://seadelt.net/Asset/Source/Document ID-454 No-01.pdf.)

Xinhua News Agency, 2019, Laos' mineral output rises despite world commodity price drop: Beijing, China, Xinhua News Agency, June 11. (Accessed January 13, 2020, at http://www.xinhuanet.com/english/2019-06/11/c 138133639.htm.)

LAOS—2017–2018

$\label{eq:table1} \textbf{TABLE 1} \\ \textbf{LAOS: PRODUCTION OF MINERAL COMMODITIES}^1$

(Metric tons, gross weight, unless otherwise specified)

Commodity ²	2014	2015	2016	2017	2018
METALS					
Antimony, mine, Sb content	620	1,166	242	320	340 ^e
Bismuth, refinery	670 ^{r, e}	1,300 r, e	2,013 ^r	2,743	3,009
Copper:	_				
Mine:	_				
Concentrates, Cu content	71,155	78,449	89,187	90,363	83,680
Solvent extraction ³	88,541	89,253	78,492	62,941	68,200
Refinery, electrowon	88,541	89,253	78,492	62,941	68,200
Gold, mine, Au content kilograms	5,265	6,893	6,764 ^r	5,988	5,579
Iron ore, mine:	_				
Gross weight	1,148,571	234,745 ^r	115,065 ^r	250,000	99,196
Fe content	712,114	145,542 ^r	71,340 ^r	155,000	61,502
Lead, mine, Pb content ⁴			210 r, e	660 ^e	330 ^e
Silicon, metal	9,503	5,673	6,836 ^r	1,042	8,900
Silver, mine, Ag content kilograms	39,806	51,763	50,904	42,841	37,465
Tin, mine, Sn content	869 ^r	512 ^r	1,117 ^r	1,083	1,551
INDUSTRIAL MINERALS	=				
Barite ^e	45,000 ^r	90,000 ^r	80,000	75,000	230,000
Cement, hydraulic thousand metric tons	2,201 ^r	3,099 ^r	3,407 ^r	3,938	4,800
Clay, common	738,512 ^r	123,093 ^r	778,030 ^r	309,000	60,800
Gypsum, mine	707,908	989,516 ^r	469,436 ^r	463,039	618,783
Potash, K ₂ O content	210,983	250,000 ^r	195,000 ^r	300,000	335,000
Salt, rock salt	8,706	1,733 ^r	118 ^r	6,697	1,000 e
Stone, crushed:	_				
Limestone	1,148,571 ^r	1,184,093 ^r	1,348,096 ^r	2,622,992	1,066,611
Sandstone	1,132,567 ^r	314,462 ^r	1,357,199 ^r	1,660,000	1,660,000 e
MINERAL FUELS AND RELATED MATERIALS	_				
Coal:	=				
Anthracite	110,317	106,028 ^r	138,809 ^r	133,284	142,994
Lignite	99,144	4,464,068 ^r	13,097,121 ^r	13,439,492	15,903,277
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^eEstimated. ^rRevised. -- Zero.

¹Table includes data available through January 3, 2020. All data are reported unless otherwise noted. Estimated data are rounded to no more than three significant digits.

²In addition to the commodities listed, gemstones, steel products, and crude construction materials, such as sand and gravel and other stones, may have been produced, but available information was inadequate to make reliable estimates of output.

³The copper content of solvent extraction output at the mine level is the same as electrowon refinery output because copper produced in the solvent extraction and electrowinning process is typically reported only at the refinery level.

⁴Estimate based on export statistics to trading partners. Source: United Nations Comtrade database.

${\it TABLE~2} \\ {\it LAOS: STRUCTURE~OF~THE~MINERAL~INDUSTRY~IN~2018}$

(Thousand metric tons unless otherwise specified)

		Major operating companies	T (1 0 1 0 11)	Annual	
Commod	ity	and major equity owners	Location of main facilities	capacitye	
Barite		Barite Mining Co., Inthavong Mining Co., Lao	Muongfuong and Sanakham, Vientiane	30	
		Development Construction Co., Phethongkham	Province		
		Co., Oravan Barite Co., and Singphooufar Co.			
Do.		DMC-VTS Joint Venture Co. (VTS Group of Laos,	Vilabouly District, Savannakhet Province	50	
		40%; PetroVietnam Drilling Mud Corp. (DMC),			
		30%; Quang Binh export company, 30%)			
Do.		Kia Energy Co. Ltd.	NA	25	
Bismuth, refinery, Bi con-	tent	5N Plus Inc.	Refinery of imports from Nui Phao Mine, Dai Tu District, Thai Nguyen Province	3	
Cement		Khammouane Cement Co. Ltd. (Siam Cement Public Co. Ltd., 100%)	Cement plant in Boualapha District, Khammouane Province	1,800	
Do.		Lanexang Cement Lao Co. Ltd. (Yunnan Provincial	Cement plant in Ban Khounguen, Khounkham	1,000	
		Energy Investment Group Co. Ltd. of China, and Saythirath Group)	District, Khammuane Province	-,	
Do.		Lao Cement Co. Ltd. (China Yunnan Corp. for	Vang Vieng I cement plant, Vientiane Province	100	
		International Techno-Economic Cooperation,			
		51%., and Lao State Enterprise for Agriculture-			
		Industry Development Import Export &			
		General Service (DAI), 49%)			
Do.		do.	Vang Vieng II cement plant, Vientiane Province	245	
Do.		do.	Vang Vieng III cement plant, Vientiane Province	1,600	
Do.		Lao Cement Industry Co. Ltd	Thakhek cement plant, Khammouane Province	1,000	
Do.		Luang Prabang Cement Co. Ltd.	Luang Prabang cement plant, Phonmany,	320	
Во.		Edding Flabaling Collient Co. Etc.	Nam Bak District, Luang Prabang Province	320	
Do.		Vientiane Hongshi Saythirath Cement Co. Ltd.	Cement plant in Phabong, Hinheup District,	1,650	
Ъ0.		(Hongshi Holding Group of China, 70%, and	Vientiane Province	1,050	
			Vicinalie Flovince		
D-		Saythirath Group 30%)	C P	450	
Do.		Zhongyayici Co.	Saravan cement plant, Saravan Province	450	
Coal:		A : 1/4 D 1 4 D 1	W DI II I d D '	(0	
Anthracite		Agriculture Industry Development Enterprises	Vieng Phoukha, Luangnamtha Province	60	
Lignite		Hongsa Power Co. Ltd.	Hongsa and Muang Ngeune Districts, Xayaboury Province	14,300	
Do.		Vieng Phoukha Coal Mine Co. Ltd.	Vieng Phoukha, Luangnamtha Province	300	
Copper:					
Mine, Cu content		Phu Bia Mining Ltd. (PanAust Ltd., 90%, and	Phu Kham copper-gold operation, Sana	90	
		Government, 10%)	Somboun District, Vientiane Province		
Metal, refined		Lane Xang Minerals Ltd. (Chifeng Jilong Gold	Sepon Mine, Vilabouly District, Savannakhet	93	
		Mining Co. Ltd., 90%, and Government, 10%)	Province		
Gemstone ²	thousand carats	Lao Sapphire Corp. Ltd. (Sino Resource Mining Corp. Ltd., 100%)	Bokeo Mine, Houaxay District, Bokeo Province	6,000	
	thousand carats		Bokeo Mine, Houaxay District, Bokeo Province Royal Mekong sapphire mine, Bokeo Province	6,000	
Gemstone ²		Corp. Ltd., 100%) Sapphminco (Sino Resource Mining Corp. Ltd., 100%)	Royal Mekong sapphire mine, Bokeo Province		
Gemstone ² Do.	do.	Corp. Ltd., 100%) Sapphminco (Sino Resource Mining Corp. Ltd.,	·	12,000	
Gemstone ² Do.	do.	Corp. Ltd., 100%) Sapphminco (Sino Resource Mining Corp. Ltd., 100%) Lane Xang Minerals Ltd. (Chifeng Jilong Gold Mining Co. Ltd., 90%, and Government, 10%)	Royal Mekong sapphire mine, Bokeo Province Sepon Mine, Vilabouly District, Savannakhet Province	12,000 7,500	
Gemstone ² Do. Gold, mine, Au content	do. kilograms	Corp. Ltd., 100%) Sapphminco (Sino Resource Mining Corp. Ltd., 100%) Lane Xang Minerals Ltd. (Chifeng Jilong Gold Mining Co. Ltd., 90%, and Government, 10%) Lao Cai Gold Joint Stock Co. [Vietnam Minerals	Royal Mekong sapphire mine, Bokeo Province Sepon Mine, Vilabouly District, Savannakhet	12,000	
Gemstone ² Do. Gold, mine, Au content Do.	do. kilograms do.	Corp. Ltd., 100%) Sapphminco (Sino Resource Mining Corp. Ltd., 100%) Lane Xang Minerals Ltd. (Chifeng Jilong Gold Mining Co. Ltd., 90%, and Government, 10%) Lao Cai Gold Joint Stock Co. [Vietnam Minerals Holding Corp. (VIMICO), 46%, and other, 54%]	Royal Mekong sapphire mine, Bokeo Province Sepon Mine, Vilabouly District, Savannakhet Province Minh Luong gold mine, Lao Cai Province	12,000 7,500 500	
Gemstone ² Do. Gold, mine, Au content	do. kilograms	Corp. Ltd., 100%) Sapphminco (Sino Resource Mining Corp. Ltd., 100%) Lane Xang Minerals Ltd. (Chifeng Jilong Gold Mining Co. Ltd., 90%, and Government, 10%) Lao Cai Gold Joint Stock Co. [Vietnam Minerals Holding Corp. (VIMICO), 46%, and other, 54%] Phu Bia Mining Ltd. (PanAust Ltd., 90%, and	Royal Mekong sapphire mine, Bokeo Province Sepon Mine, Vilabouly District, Savannakhet Province Minh Luong gold mine, Lao Cai Province Ban Houayxai gold-silver operation,	12,000 7,500	
Gemstone ² Do. Gold, mine, Au content Do.	do. kilograms do.	Corp. Ltd., 100%) Sapphminco (Sino Resource Mining Corp. Ltd., 100%) Lane Xang Minerals Ltd. (Chifeng Jilong Gold Mining Co. Ltd., 90%, and Government, 10%) Lao Cai Gold Joint Stock Co. [Vietnam Minerals Holding Corp. (VIMICO), 46%, and other, 54%]	Royal Mekong sapphire mine, Bokeo Province Sepon Mine, Vilabouly District, Savannakhet Province Minh Luong gold mine, Lao Cai Province Ban Houayxai gold-silver operation, 15 kilometers east of Vangvieng,	12,000 7,500 500	
Gemstone ² Do. Gold, mine, Au content Do.	do. kilograms do.	Corp. Ltd., 100%) Sapphminco (Sino Resource Mining Corp. Ltd., 100%) Lane Xang Minerals Ltd. (Chifeng Jilong Gold Mining Co. Ltd., 90%, and Government, 10%) Lao Cai Gold Joint Stock Co. [Vietnam Minerals Holding Corp. (VIMICO), 46%, and other, 54%] Phu Bia Mining Ltd. (PanAust Ltd., 90%, and	Royal Mekong sapphire mine, Bokeo Province Sepon Mine, Vilabouly District, Savannakhet Province Minh Luong gold mine, Lao Cai Province Ban Houayxai gold-silver operation,	12,000 7,500 500	

See footnotes at end of table.

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TABLE 2—Continued LAOS: STRUCTURE OF THE MINERAL INDUSTRY IN 2018

(Thousand metric tons unless otherwise specified)

Commodity Gypsum, mine		and major equity owners	Location of main facilities	capacitye
				capacity
		Khounxay Gypsum Mining Co. Ltd.	Vientiane Province	500
F		(Khounxay Phatthana Group)		
Do.		Lao State Gypsum Mining Co. Ltd.	Champhon District, Savannakhet Province	200
Do.		LAVICO Co. Ltd. (a Laos-Vietnam joint venture)	Xebangfay District, Khammouane Province	100
Do.		Mining Development Economy Corp. (OEDCD)	Thakhek District, Khammouane Province	150
Do.		Savan Gypsum Mining Co. Ltd.	Champhon District, Savannakhet Province	80
Iron ore, gross weight		Lao SPG CMC Mining Co. Ltd. (Gimpex Ltd.)	Houaphanh iron ore mine, Xamneua District, Houaphanh Province	250
Potash		Lao Kaiyuan Mining Sole Co. Ltd.	Longhu, Guangcai, and Wentai Mines, Khammouane and Savannakhet Provinces	500
Do.		Laotian Potash Mining Industry Ltd. Co.	Potassium chloride plant, Vientiane Province	50
Do.		SinoAgri Mineral Resources Exploration Ltd. (a joint venture between Beijing Jiang Zhi Yuan Investment Ltd. and China National Agricultural Means of Production Group Corp.)	Plant in Sakhon Nakon basin in Khammouane Province	200
Salt		Artisanal salt factories, including: Banbor Salt Factory	Valentiane Province	3
Do.		Bosarn Salt Factory	Sayabouly Province	1
Do.		Boten Salt Factory	Luangnamtha Province	1
Do.		Kengkok Salt Factory	Savannakhet Province	3
Do.		Nateui Salt Factory	do.	4
Do.		Khoksaat Salt Factory	Vientiane municipality	5
Do.		Oudomxay Salt Factory	Oudomxay Province	NA
Do.		Saythip Salt Factory	Savannakhet Province	1
Do.		Songkhone Salt Factory	Bolikhamxay Province	1
Do.		Veunkham Salt Co.	Xaythany District, Vientiane Province	5
Silver, mine, Ag content	kilograms	Phu Bia Mining Ltd. (PanAust Ltd., 90%, and Government, 10%)	Ban Houayxai gold-silver operation, 15 kilometers east of Vangvieng, Vientiane Province	25,000
Do.	do.	do.	Phu Kham copper-gold operation, Sana Somboun District, Vientiane Province	19,000
Steel, products		Vientiane Capital Steel Industry Co. Ltd.	Vientiane City	150
Stone, limestone		Agriculture Industry Development Enterprises	Vangvieng, Vientiane Province	150
Do.		Laos Cement Co. Ltd.	do.	250
Do.		Phanangnon Co. Ltd.	Thakhek District, Khammouane Province	100
Do.		V.S.K. Co. Ltd.	do.	150
Tin, mine, Sn content	metric tons	Lao-North Korea Tin Mining Co.	Hinboune District, Khammouane Province	120
Do.	do.	S V Mining Co. Ltd.	do.	300

^eEstimated. Do., do. Ditto. NA Not available.

¹Estimated combined capacity of the six local barite-mining companies.

²Gemstones include sapphire, spinel, and zircon.