Indian Minerals Yearbook 2018

(Part- I)

57th Edition

STATE REVIEWS
(Arunachal Pradesh)

(FINAL RELEASE)

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ARUNACHAL PRADESH

Mineral Resources

The most important mineral resource of the State is **petroleum & natural gas** and its chief occurrence is reported in Ningru and Dam Duma areas. These hydrocarbon deposits are located in the Assam Arakan Fold Belt (AAFB) and Upper Assam basin in the State. The State also reports resources of **coal** in Namchick Namphuk and Miaobum Coalfields; **Copper** in East Kameng district: **dolomite** in West Kameng district; **fuller's earth** in Tirap district; **graphite** in Lohit, East Siang and Upper Subansiri districts; **limestone** in Dibang Valley, Lohit, East Siang and Upper Subansiri districts and **quartzite** in West Kameng district (Tables-1 and 2).

Exploration & Development

Exploration activities carried out by GSI for base metals (copper & gold) & graphite mineral during the year 2017-18 is furnished in Table-3. National Oil Companies (NOC) continued their operations for exploration of oil and gas in the State during 2017-18.

Table – 1 : Reserves/Resources of Minerals as on 1.4.2015 : Arunachal Pradesh

Mineral	Unit	Total Reserves (A)	Remaining resources				Total resources (A+B)
			Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)	
Copper							
Ore	'000 tonnes	-	-	-	0 .02	0.02	0.02
Metal	'000 tonnes	-	-	-	10	10	10
Dolomite#	'000 tonnes	-	204	77633	-	77837	77837
Fuller's earth##	tonne	-	10700	20000000	-	20010700	20010700
Graphite	tonne	-	-	-	72758257	72758257	72758257
Limestone	'000 tonnes	-	49220	433575	1	482795	482795
Quartzite#	'000 tonnes	-	-	5270	-	5270	5270

Figures rounded off.
 # Declared as Minor Mineral vide Gazette Notification dated 10.02.2015.
Minor Mineral before Gazette Notification dated 10.02.2015.

Table – 2 : Reserves/Resources of Coal as on 1.4.2018: Arunachal Pradesh

(In million tonnes)

Coalfield	Proved	Indicated	Inferred	Total
Total	**31.23**	**40.11**	**18.89**	**90.23**
Namchik-Namphuk	31.23	40.11	12.89	84.23
Miaobum	-	-	6.00	6.00

Source: *Coal Directory of India, 2017-18.*

Table – 3 : Details of Exploration Activities in Arunachal Pradesh, 2017-18

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
GSI							
Copper & Gold							
East Kameng and Papum Pare	Around Bubiya-Laporiang area	1:12500	52.00	-	-	-	Reconnaissance survey for copper and possible associated gold mineralisation was taken up by large-scale mapping. A total of 03 major mineralised zones was delineated. A 500-700 m width shear zone (Zone I) has been recorded near Dedollo. Oxidation, limonitisation and boxworks have been observed in this zone. A 180-200 m width shear zone (Zone II) was seen near Leporiang. The host rock is quartzite with specks of pyrite grains. In another Zone of 80-100 m width (Zone III), recorded in the old Bubiya road near to Lodosho village, the rock type is phyllite. In this zone, a quartz vein has been observed with pyrite, chalcopyrite and bornite mineralisation.
Lower Subansiri	Poss-Kamcha area	1:12500	50	-	-	-	Reconnaissance survey for gold and associated mineralisation in the metasedimentary sequence of Bomdila Group in this area has been carried out.Two iron sulphide mineralised zones have been delineated.Iron-sulphide mineralised zone within grey phyllite and carbonaceous phyllite has been observed within the discontinuous outcrops having width of 2 to 4 m which extends upto a strike length of 0.5 km. The iron bands are <1 cm to 4 cm thick and occur as intercalations with phyllite. At places the sulphide concentration is significantly high where in pyrite, chalcopyrite is observed to occur as clusters, smears and is disseminated within the carbonaceous phyllite. A sulphide-rich zone in the form of rich disseminations of pyrite, chalcopyrite and other sulphides within mafic-rich phyllite rock has also been delineated southeast of Peti along Pith Pabung nala. The mineralised zone has a NE-SW strike and is exposed at two places having width of 3 to 6 m that extends to over a strike length of 1 km with intervening soil covered tract.
Graphite							
Upper Subansiri	Around Taliha	-	-	-	-	-	During G3 level preliminary investigation, four discontinuous lenses of quartz schist and carbonaceous

(Contd)

Table – 3 (Concld)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling (No.)	Remarks Reserves/Resources estimated
		Scale	Area (sq km)	No. of boreholes	Meterage		
Upper Subansiri	Around Taliha	-	-	-	-	-	phyllite/ schist associated graphite were delineated. In Dupit area an enriched band of graphite-quartz schist was delineated for a strike length of 400 m with an average width of 20 m. A band of intensely crenulated quartz mica schist with flakes of graphite (2-5 mm) was also delineated extending up to a strike length of 60 m. One borehole intersected graphitic schist from 7 to 8.5 m, graphitic marble from 17 to 33 m, 38 to 63 m and 73 to 86 m along borehole length. Preliminary beneficiation studies indicated about 10% fixed carbon content in the graphitic marble.

Production

Petroleum (crude) and natural gas (utilised) were the important mineral items produced in Arunachal Pradesh.

The value of minor minerals production was estimated at ` 34 crore for the year 2017-18 (Table - 4).

Table-4 : Mineral Production in Arunachal Pradesh, 2015-16 to 2017-18 (Excluding Atomic Minerals)

(Value in `'000)

Mineral	Unit	2015-16			2016-17			2017-18 (P)		
		No. of mines	Quantity	Value$	No. of mines	Quantity	Value$	No. of mines	Quantity	Value$$
All Minerals		-		**337209**	-		**337209**	-		**337209**
Natural Gas (utilised)	m c m	-	29	-	-	28	-	-	30	-
Petroleum (crude)	'000t	-	58	-	-	56	-	-	50	-
Minor Minerals@		-	-	337209	-	-	337209	-		337209

Note : *The number of mines for petroleum (crude), natural gas (utilised) and minor minerals are not available.*

$ *Excludes the value of Petroleum (crude) & Natural Gas (utilised.)*

$$ *Excluding fuel minerals.*

@ Figures for earlier years have been repeated as estimates because of non-receipt of data.