



Ministry of
**Mines and Steel
Development**

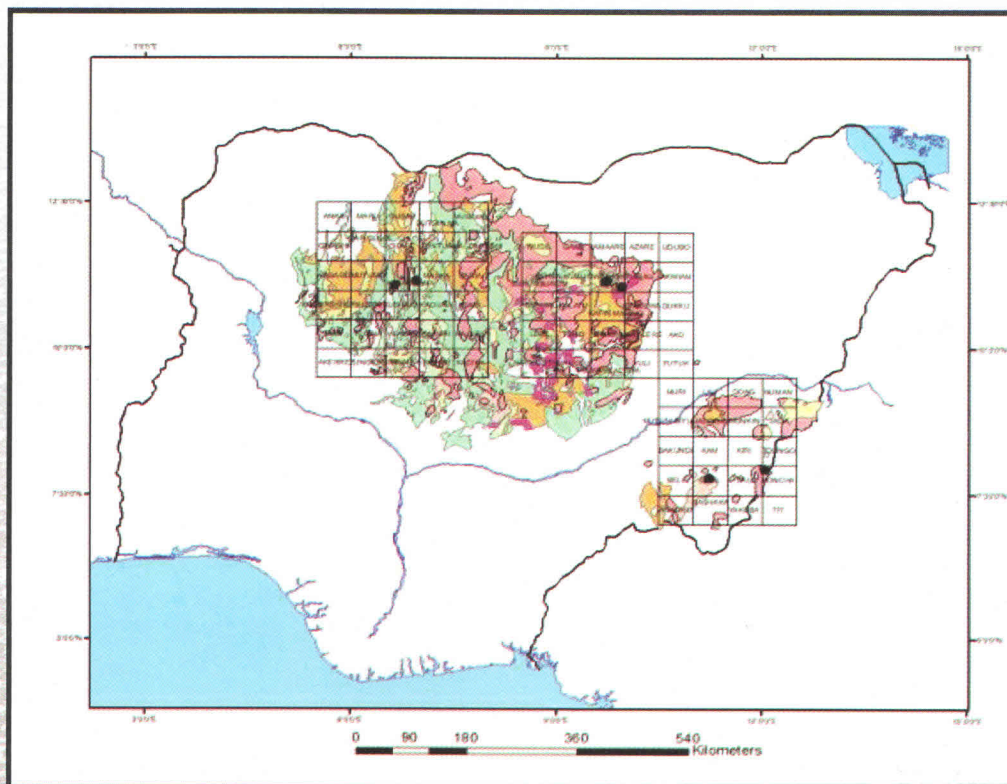


GRAPHITE **in** **NIGERIA**

Exploration and Investment Opportunities

Introduction

Graphite occurrences has been reported in several parts of Nigeria, (Sama Barkono and Dutsen Haiyar, in Bauchi State, Saulawa, Birnin Gwari in Kaduna states, Mayo Butale Adamawa state and Gayama Taraba state, but there is relatively little or no information about exploration on these deposits. Artisanal mining have been reported in some of these areas. However, there has not been any documented exploration reports on any of these occurrences. Furthermore, reports indicated that he Saulawa area in Birnin Gwari has been worked on in the past by artisanal miner where a truck loads of the material was carried to an unknown destination. Also analytical results of samples from Sofon Brirnin Gwari area indicated that the graphitic carbon content is within the range of 4.5 - 9.4 %



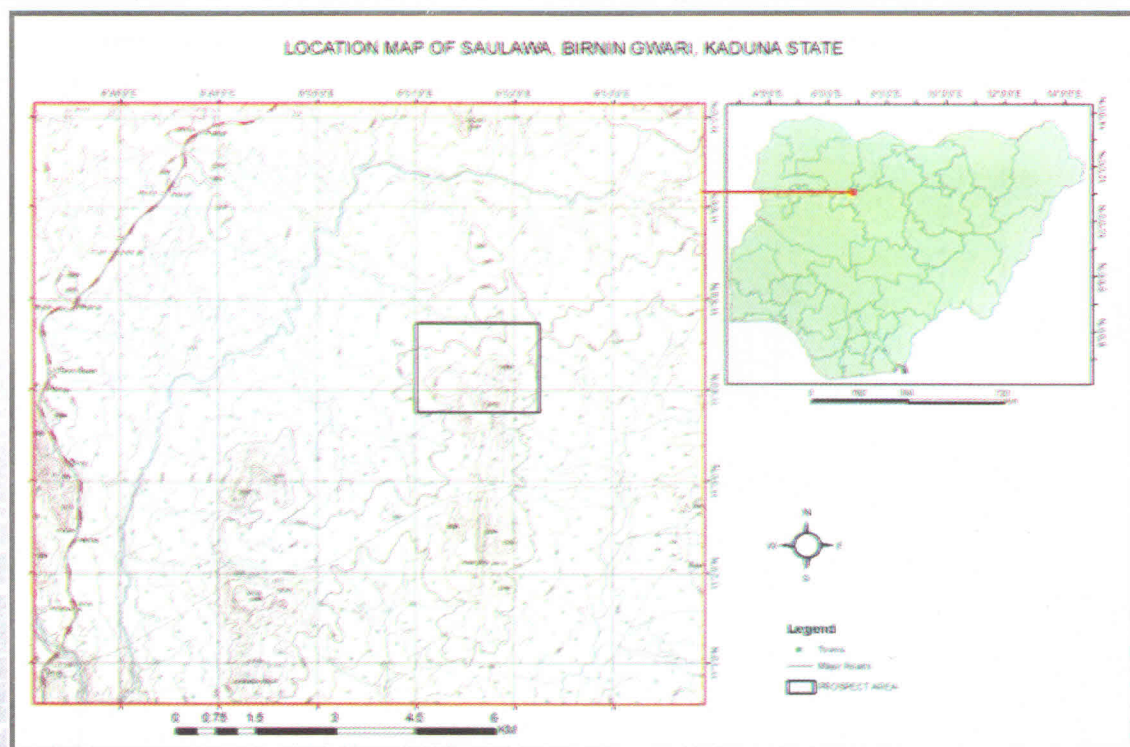
Geological Map of Nigeria with some graphite locations

Geological Setting of Saulawa Graphite

The graphite occurrences in Nigeria have been reported in several types of geological setting. However the prominent ones are associated with quartz rich vein and pegmatitic materials, which intruded into semi-pelitic to quartz schist formation of Upper Proterozoic age of the Birnin Gwari schist belt in Kaduna State. Several occurrences have been reported from the hills of Farin Rua, Lambada and around Saulawa, Gwobirawa, Manda, Kakina, Kwaskwasa and Sofon Kuyelo.

Graphite Mineralization

Saulawa graphite is the vein type mineralization associated with quartz veins and pegmatite. The ore body is structurally controlled along N - S regional trend. There is an exposure along a South – North flowing stream channel that is equally structurally controlled. The graphite vein is massive flakes with exposures spanning thicknesses of between 2m to 5m along the bank of a stream channel. The strike of the ore body is between 1700 to 1800 with vertical to near vertical dips of 870 to 900. The mineralized body investigated spans about 800m along strike and between 10m to 30m across the strike. Airborne interpretation indicated the prospects of the occurrences of several other ore bodies. Ground geophysical studies (VES and IP) suggests the investigated ore body extends beyond 30m depth.



Location of Saulawa Graphite

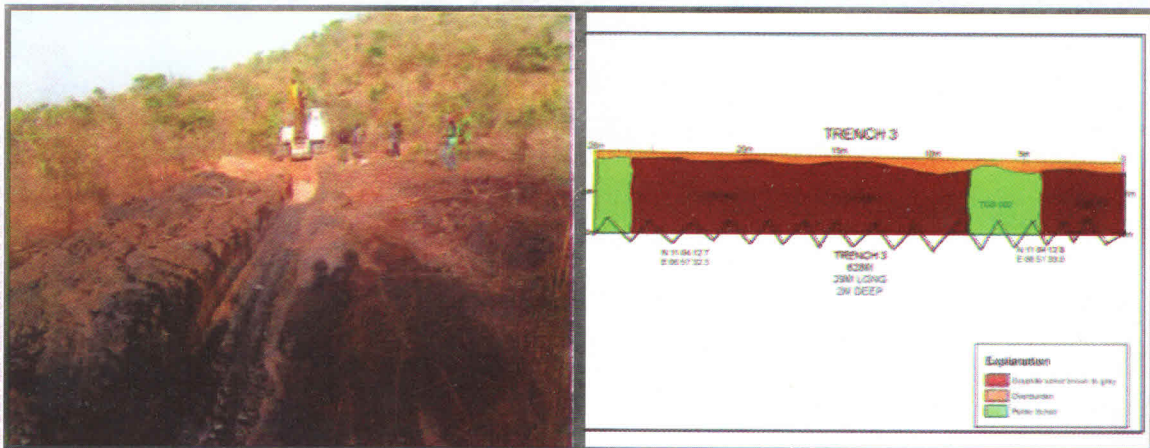
Geochemical Characteristics

Analytical data indicated that the Saulawa graphite has a range of Graphitic Carbon (Cg) content of between 0.1% Cg to 3.36% Cg, and Total Carbon (TC) content percentage ranged of 0.1% to 4.41%. Trace elements concentrations are generally low with enhanced contents. The Cg content of compares favourably with the Total Measured and Indicated ("M&I") resource of averaging 1.35% crystalline flake graphite recently declared Eagle Graphite Incorporated graphite operations in the Black Crystal graphite quarry in south eastern British Columbia, Canada. Furthermore, the 3.36Cg is within the cut of grade limits of Nachu graphite of Tanzania.

Overview of Saulawa Graphite Resource

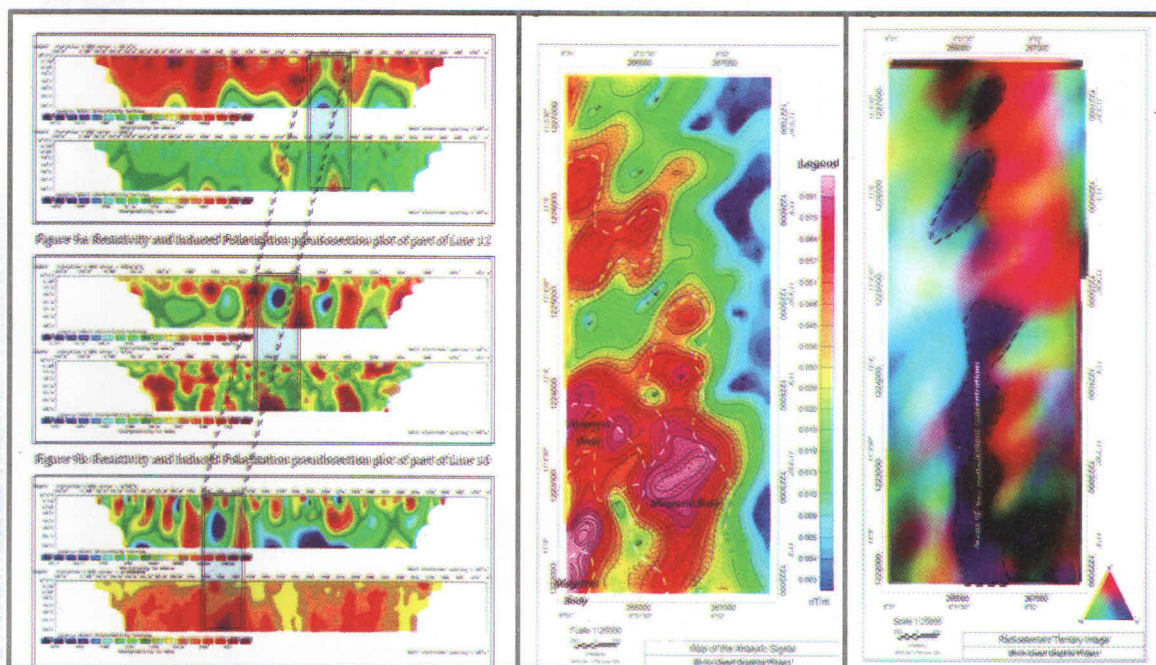
Location	Saulawa, Birnin Gwari Area. Kaduna State
Exploration	Preliminary exploration of one of the numerous deposits has been carried out on the scale of 1:5000. Graphitic Carbon content ranges from 0.1% Cg to 3.36%, though earlier results indicated the concentrations of 4.5 - 9.4 % in another orebody nearby
Geology and Mineralization	Graphitic bodies associated with quartz rich vein and pegmatitic materials, which intruded into semi-pelitic to quartz schist formation of Upper Proterozoic age. The investigated orebody spans about 800m along strike and between 10m to 30m across the strike
Available Data	Geological maps, geophysical maps (IP and VES). Trench (logs and Sections) and geochemical data
Resource Estimate	Pre drilling data 0.77 million tonnes in the investigated area

Typical Section of a Trench

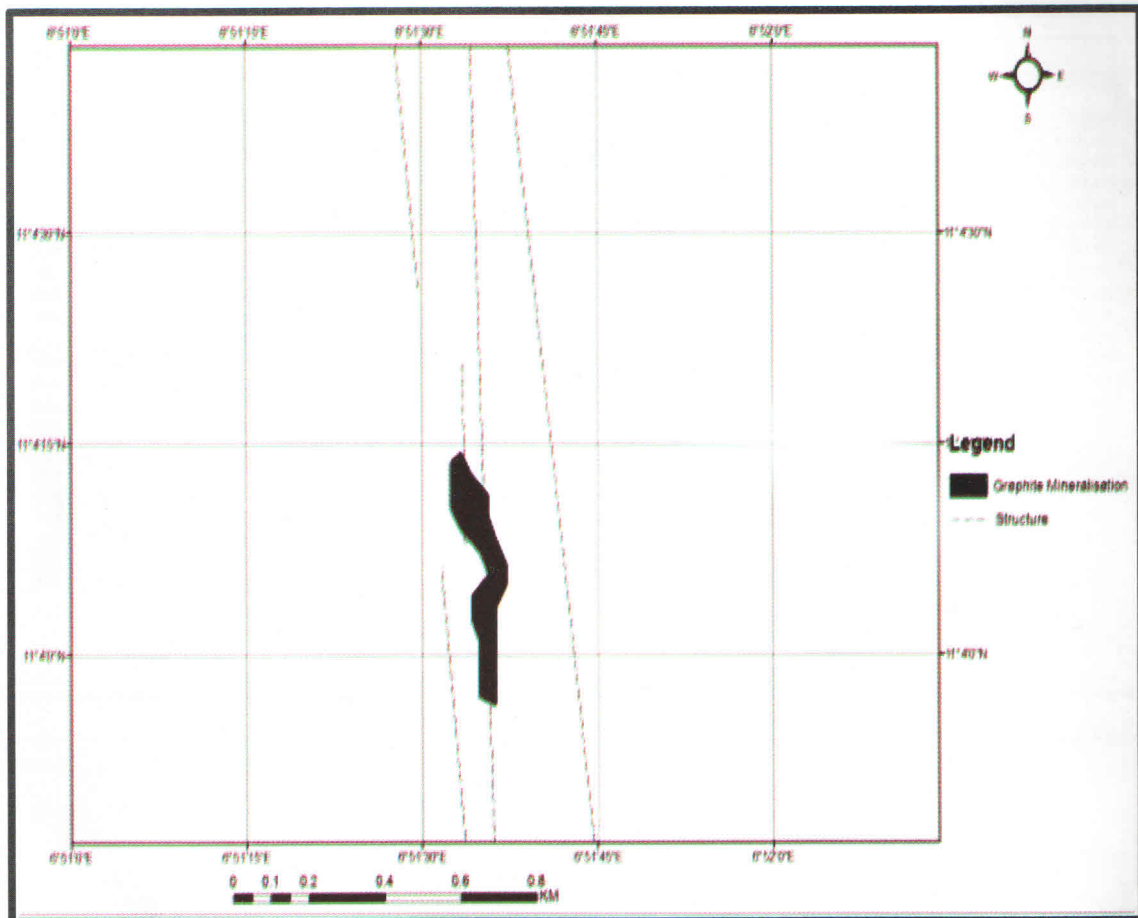


Sample ID	Sample Type	PWE-100 Rec. Wt. kg 0.01	Method Analyte Units LOR	FAS-113 Au ppm 0.002	FAS-113 Pd ppm 0.002	FAS-113 Pt ppm 0.005	SPM-210 TS % 0.01	SPM-511 TC % 0.01	SPM-511 TIC % 0.02	SPM-511 TOC % 0.02	SPM-511 C (Graphite) % 0.02	LOI-1000 LOI % 0.01	PER-700 Al % 0.01	PER-700 As % 0.01
Glass Blank	QC-P-BK	—		<0.002	<0.002	<0.005	0.06	0.15	<0.02	0.15	<0.02	0.86	0.85	<0.01
TSG 1001	Rock	1.42		0.004	<0.002	<0.005	<0.01	0.48	0.04	0.07	0.37	2.49	4.19	<0.01
TSG 1002	Rock	1.31		0.005	<0.002	<0.005	<0.01	2.14	0.05	0.32	1.77	5.38	6.96	<0.01
TSG 1003	Rock	1.65		0.004	0.002	<0.005	<0.01	2.31	<0.02	0.24	2.06	5.54	7.98	<0.01
TSG 1004	Rock	1.23		0.004	0.003	<0.005	<0.01	2.60	0.28	0.28	2.04	5.06	6.49	<0.01
TSG 1005	Rock	1.22		0.004	<0.002	<0.005	<0.01	2.73	0.22	0.50	2.01	4.61	5.96	<0.01
TSG 1006	Rock	1.55		0.004	0.003	<0.005	<0.01	3.04	1.05	0.64	1.35	5.74	6.96	<0.01
TSG 1007	Rock	1.70		0.004	0.002	<0.005	<0.01	2.59	0.19	0.55	1.85	5.25	7.09	<0.01
TSG 1008	Rock	2.33		<0.002	<0.002	<0.005	<0.01	0.05	<0.02	0.04	<0.02	0.44	0.23	<0.01
TSG 2001	Rock	1.36		0.004	0.003	<0.005	<0.01	4.41	0.23	0.82	3.36	7.30	7.05	<0.01
TSG 3001	Rock	1.95		<0.002	<0.002	<0.005	<0.01	0.08	<0.02	0.04	0.03	2.23	3.86	<0.01
TSG 3002	Rock	1.21		<0.002	<0.002	<0.005	<0.01	0.10	<0.02	0.04	0.04	2.98	5.27	<0.01
TSG 3003	Rock	1.32		0.005	0.003	<0.005	<0.01	3.41	<0.02	0.51	2.89	6.48	7.66	<0.01
TSG 3004	Rock	1.68		0.006	0.003	<0.005	<0.01	3.23	0.31	0.64	2.28	5.86	6.90	<0.01
TSG 3004PD	QC-PD	—		0.005	0.003	<0.005	<0.01	3.33	0.32	0.75	2.26	5.85	7.05	<0.01
TSG 3005	Rock	1.49		0.01	<0.002	<0.005	<0.01	0.08	<0.02	0.08	<0.02	2.73	5.10	<0.01
TSG 4001	Rock	1.58		0.005	<0.002	<0.005	<0.01	0.27	<0.02	0.11	0.15	3.31	7.37	0.01
TSG 4002	Rock	1.04		0.003	<0.002	<0.005	<0.01	0.19	<0.02	0.07	0.10	3.65	7.57	<0.01
TSG 5001	Rock	1.43		0.01	<0.002	<0.005	<0.01	0.50	0.06	0.13	0.31	4.38	10.42	<0.01
TSG 6001	Rock	1.67		0.007	<0.002	<0.005	<0.01	0.74	0.26	0.17	0.31	5.36	10.04	<0.01
TSG 7001	Rock	1.69		0.007	<0.002	<0.005	<0.01	0.63	0.05	0.24	0.34	5.09	10.31	<0.01

Geochemical Data



Airborne and Ground Geophysical Data



Geological and Mineralization Data

Investment opportunities

- Applying for mineral titles with a view of wholly owning the mining rights for the deposit.
- Partnering with existing title holders for detailed exploration as consultants and specialists.
- Partnering with existing title holders in joint venture agreement to explore, mine and market the graphite resources of areas of interest.
- Legal transaction in graphite won in quarries and operations for local processing or export.



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Mines and Steel Development

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