

Supporting Information

Exposure Assessment to Respirable Free Silica in Coal Mining Areas: A Health Risk Assessment Approach

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Fig. S1. Monitoring location picture of Kaniha OCP.



Fig. S2. Monitoring location picture of Lingaraj OCP.



Fig. S3. Monitoring location picture of Bharatpur OCP.

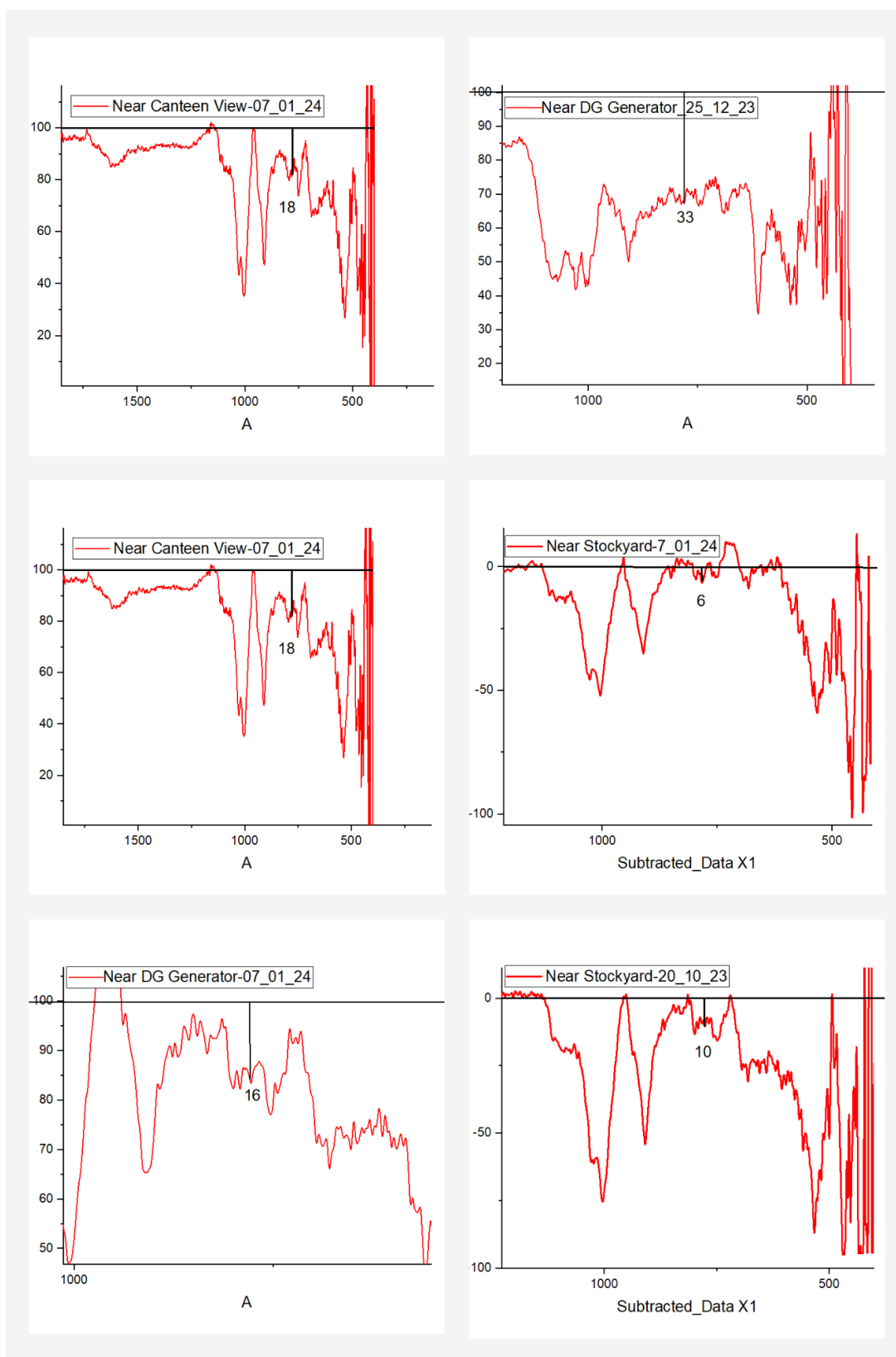


Fig. S4. FTIR peaks for some of the samples of Kaniha OCP.

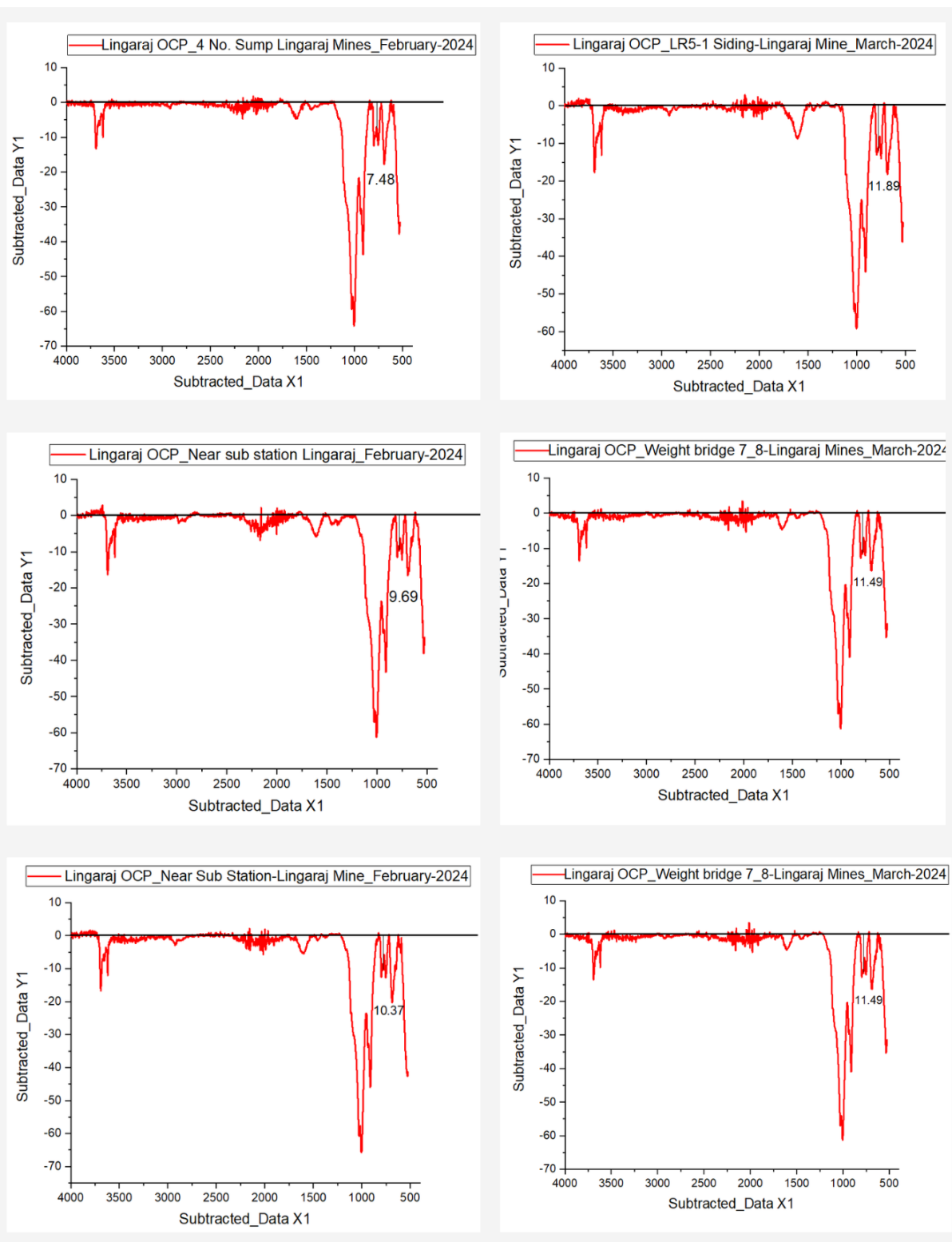


Fig. S5. FTIR peaks for some of the samples of Lingaraj OCP.

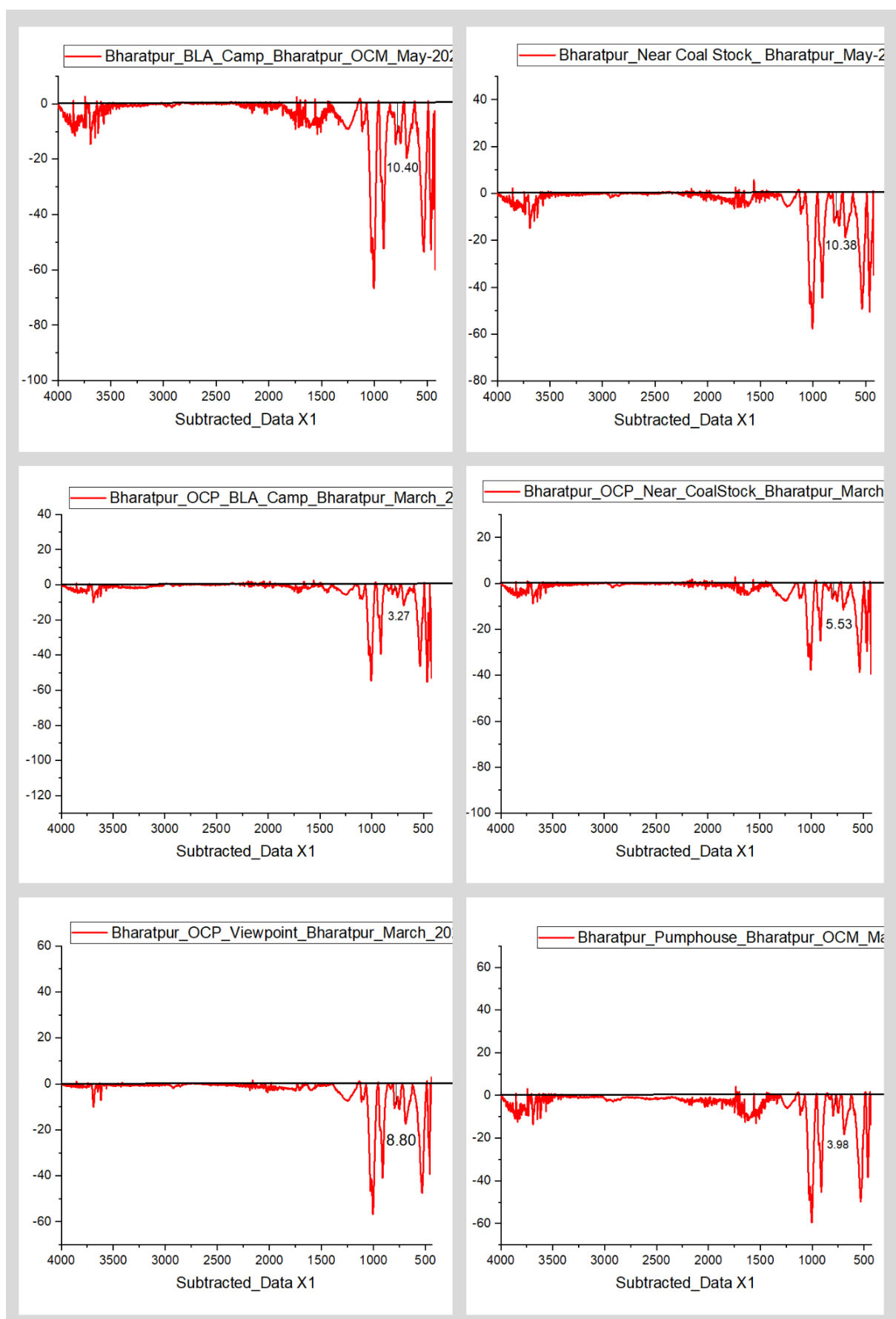


Fig. S6. FTIR peaks for some of the samples of Bharatpur OCP.

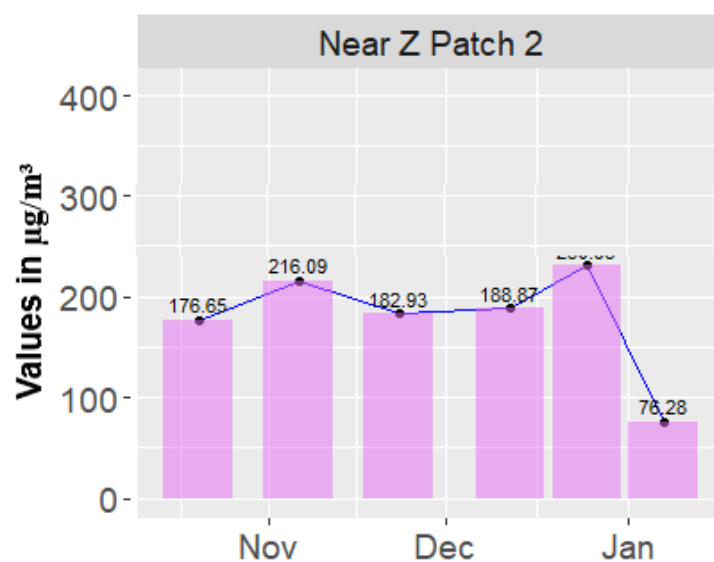


Fig. S7. PM₁₀ in µg/m³ for Near Z patch 2.

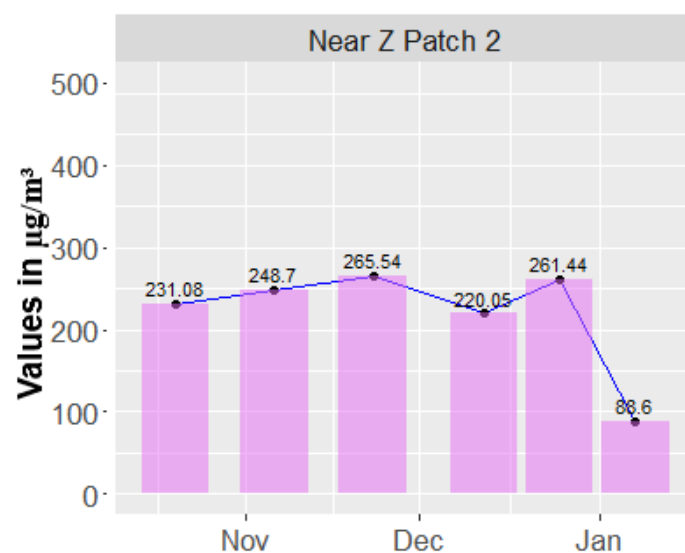


Fig. S8. SPM PM₁₀ in µg/m³ for Near Z patch 2.

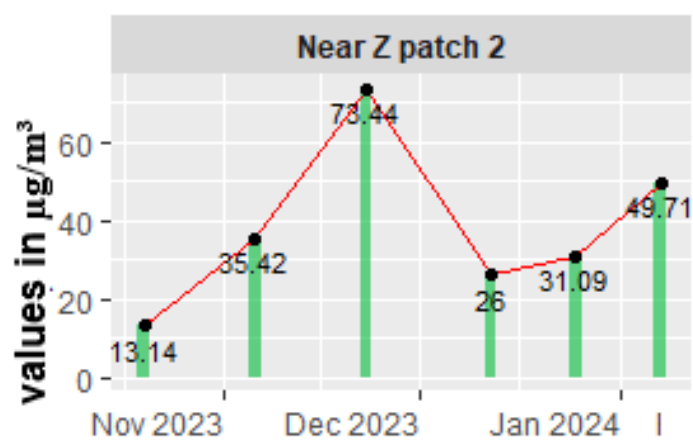
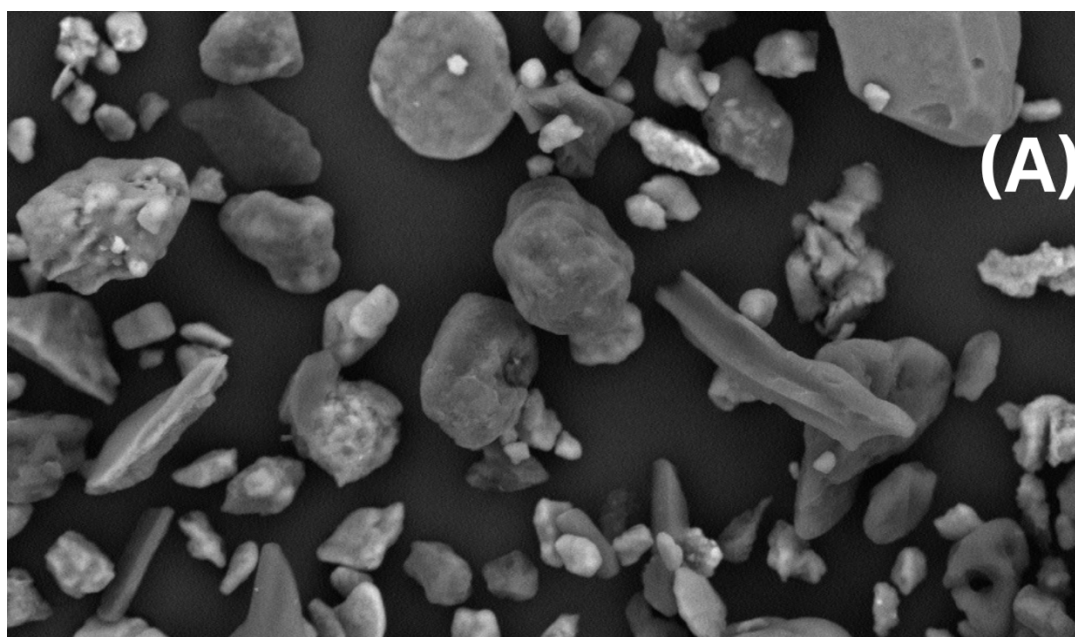


Fig. S9. Free Silica in µg/m³ for Near Z patch 2.



2 μ m EHT = 20.00 kV Signal A = HDBSD Date: 19 Apr 2024
H WD = 8.89 mm Mag = 5.00 K X Time: 15:33:51

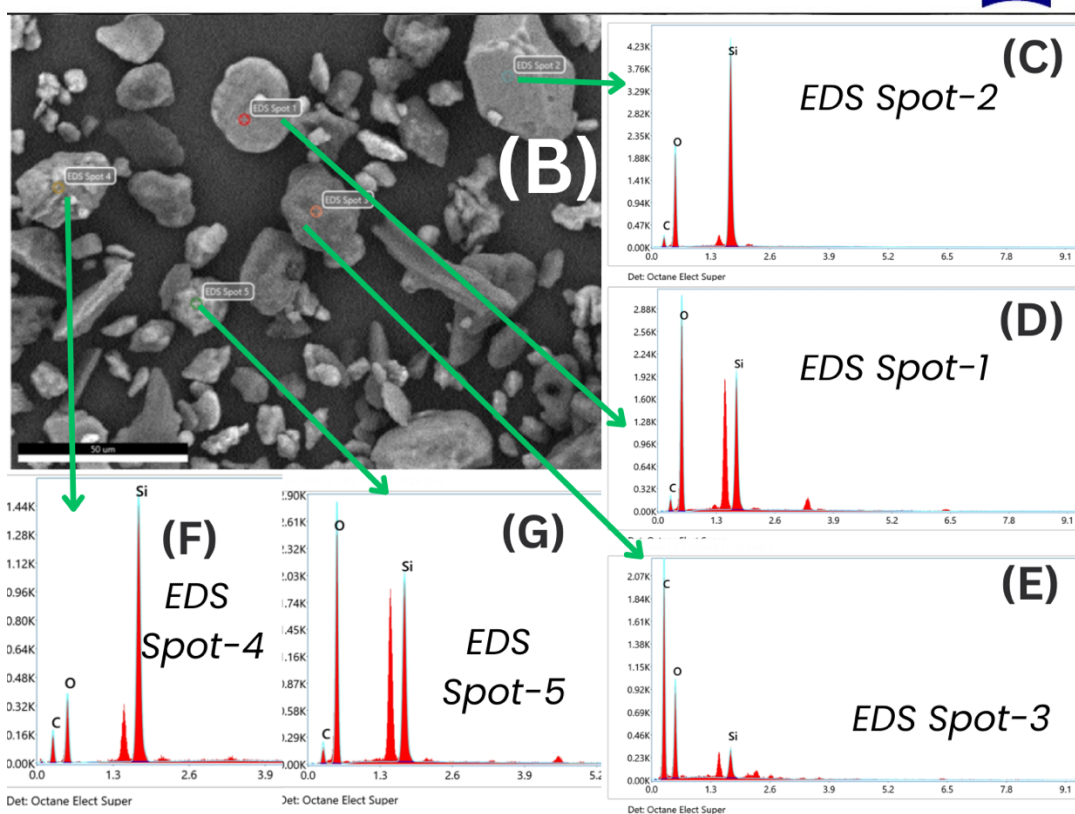


Fig. S10. SEM-EDS for the Near Z patch of the Kaniha OCP.

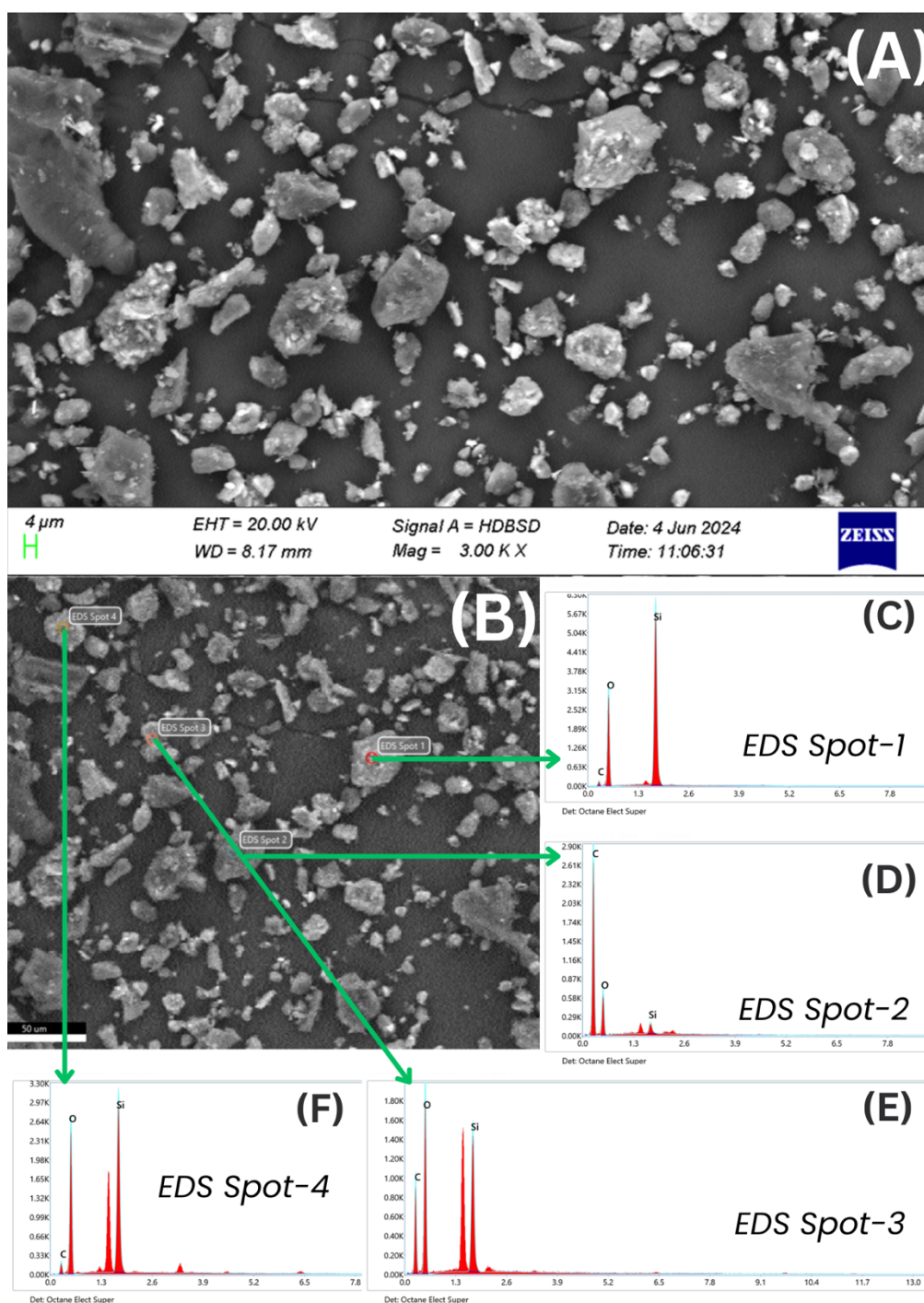


Fig. S11. SEM-EDS for Near Sump no. 4 of the Lingaraj OCP.

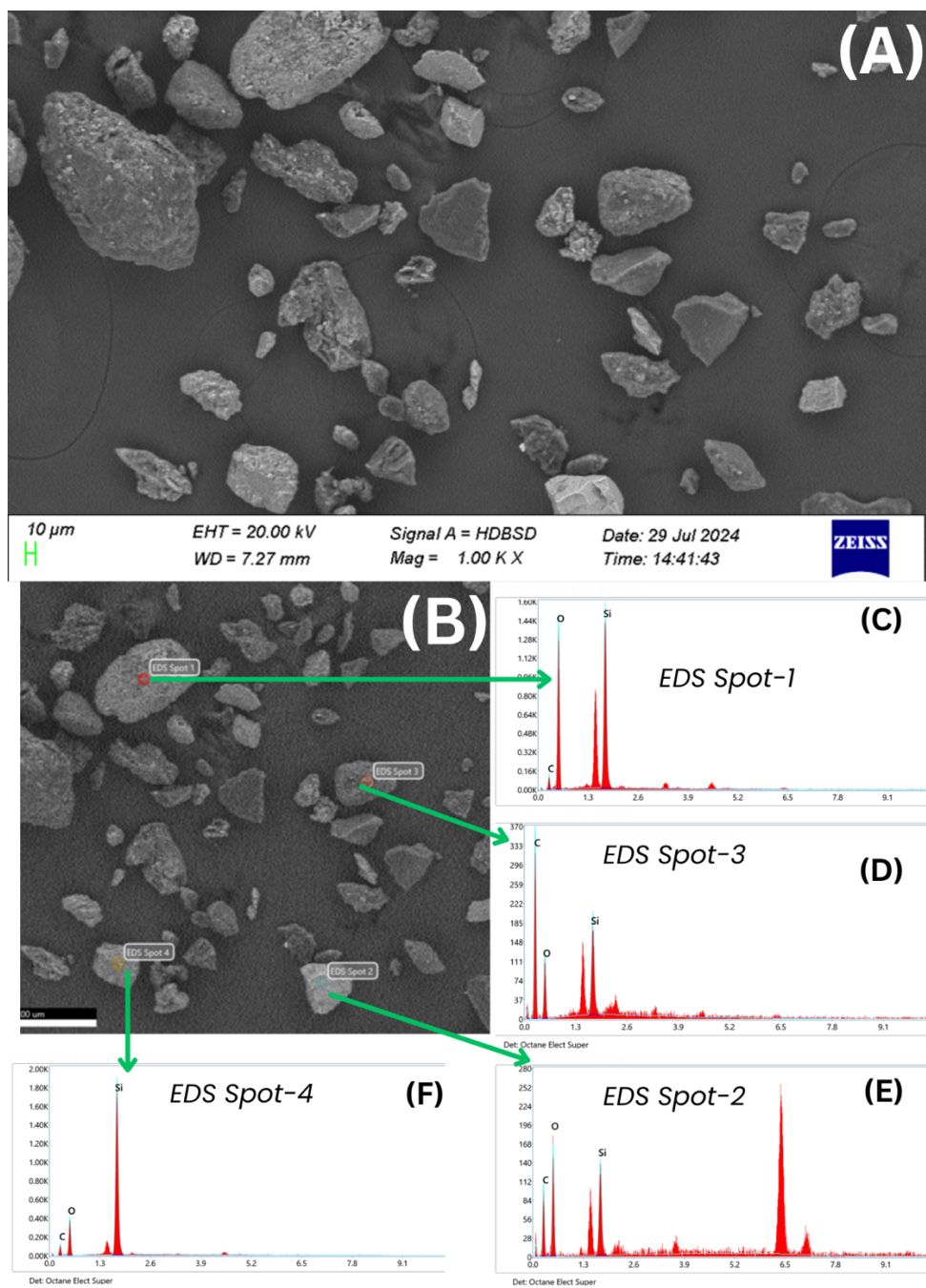


Fig. S12. SEM-EDS for BLA Camp of the Bharatpur OCP.

Table S1. Mineralogical Composition of a Borewell from Kaniha, Lingaraj, and Bharatpur OCP.

Sl. No.	Sample Details	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	Na ₂ O	K ₂ O	CaO	MgO	TiO ₂	P ₂ O ₅	SO ₃	Undeter-mined	Total
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
1.	Kaniha OCP	64.43	26.47	0.865	0.413	2.33	1.3	1.684	1.1	0.056	0.62	0.749	100
2.	Lingaraj OCP	63.20	28.50	2.99	0.55		0.89	-	1.33	1.40	<0.01	1.44	~100
3.	Bharatpur OCP	60.2	29.1	5.2	0.4		1.16	0.9	1.16	0.7	0.3	-	~100