a total value of £92 0s. 9d. which was recovered. The assay-value of the ore per ton was as follows :—

	Oz.	dwt.	gr.
"Bullion	0	4	0
Gold	0	2	11
Silver	0	1	13

Value, 10s.

"*Approximate Value of Ore.*—400 tons at 10s. = £200.

Value of Ore.	Recovered.	Percentage of saving.
£	£ s. d.	
200	92 0 9	46

"The percentage of saving effected in this test shows a most marked improvement on that obtained in the first test, and, considering the excessively low-grade nature of the ore, the present result must be considered fairly satisfactory, and an evidence of increased care and skill on the part of those engaged in the battery.

"*Test at Norfolk Battery.*—Two separate tests of two 10-ton parcels were made at this battery, under the most strict supervision. In both tests the value of bullion recovered from the amalgamated copper-plates amounted to 22 per cent. of the original value of the ore. The tailings from one parcel were passed through a double long buddle, and from the other over three Lübrig vanners.

"The concentrates in the buddle contained 57 per cent. of the original value of the ore. They have not been treated up to the present time, but judging from the results obtained at the other batteries it seems unlikely that more than half their value will be recovered by ordinary amalgamation, which would bring the total saving somewhat under 50 per cent.

"*North Star Test.*—The parcel of ore on which this test was made was treated at the Moanataiari battery. It weighed about 20 tons, net dry-weight, and showed the following assay-value per ton :—

	Oz.	dwt.	gr.
"Bullion	5	15	23
Gold	3	6	19
Silver	2	9	4

Value, £13 14s. 6d.

"Twenty tons of ore at £13 14s. 6d. = £274 10s.

"The total return from all sources was 43oz. 16dwt. of melted bullion, valued at £110 15s. 6d., representing a saving of 40·3 per cent. of the original value of the ore.

Syllabus of Lectures and Instruction, 1892–93.

"*Practical Assaying.*

"Fuels, appliances, fluxes, &c., used in the dry assay of ores of gold, silver, lead, tin, antimony, copper, &c. Assay of gold, silver, and lead bullion, and wet assay of ores of iron, copper, lead, zinc, antimony, bismuth, arsenic, manganese, &c. Preparation of pure silver; litharge assay; melting and refining base bullion; amalgamation; retorting. Text-book, Berringer's 'Assaying.'

"*Metallurgy of Gold and Silver.*

"Crushing and pulverising machinery, both wet and dry; concentration and ore dressing; sampling ore, &c. The treatment of gold-bearing ores by amalgamation, chlorination, alkaline cyanides, &c. The treatment of silver ores by amalgamation and by leaching with different solvents, including alkaline cyanides. Text-books, Eissler's 'Metallurgy of Gold' and 'Metallurgy of Silver.'

"*Practical Chemistry.*

"Chemical manipulation; acids; reagents; group reagents; separation of metals; properties of metals; testing solutions; testing rocks and minerals; solution of mineral substances; analysis of simple substances; analysis of compound substances; quantitative analysis of sulphides and complex ores, coals, soils, waters, slags, limestones, &c.

"*Theoretical Chemistry.*

"Principles of chemistry; atoms; molecules; vapour density; quantivalence; chemical formulæ; the elements—their history, occurrence, preparation, properties, and uses; compounds of the elements—their occurrence, preparation, properties, and uses.

"*Mineralogy and Blow-pipe Determination.*

"Systematic mineralogy; properties of minerals—their cleavage, hardness, specific gravity, &c.; optical properties—refraction, reflection, double reflection, polarisation, lustre, phosphorescence; chemical properties—the application of the blow-pipe, supports, reagents, flame reactions, colour tests with borax heads, &c.; isomorphism, pseudomorphism, and allotropy; distribution and paragenesis of minerals; classification of minerals—chemical system, economic system; descriptive mineralogy—non-metallic, division, carbon group, haloids and salts, alkaline earth group, silicates, aluminates, with a description of the principal minerals of each group, aided by hand-specimens; metallic division—a description of the principal ores and compounds of the different metals, their occurrence, hardness, specific gravity, crystallographic form, colour, lustre, streak, composition, uses, distribution, &c.

"Crystallography: The six systems, their axes, typical forms, modified forms, holohedral and hemihedral forms, macles, reading of faces, &c.