

2024

GNS Science
Half Year Report



GNS scientists at the National Isotope Centre in Gracefield, Wellington

Cover

Our remote infrastructure management team servicing a monitoring station on the east side of Mount Tongariro



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THE BOARD OF GNS SCIENCE IS PLEASED TO PRESENT THE ORGANISATION'S FINANCIAL STATEMENTS, HALF YEAR SUMMARY AND HIGHLIGHTS FOR THE SIX MONTHS ENDED 31 DECEMBER 2024.

FINANCIAL SUMMARY

GNS Science recorded a net profit after tax of \$1.8m for the first six months of the 2024/25 financial year, compared to a net profit of \$1.1m for the same period last year. Revenue performance for the six months was \$62.6m, compared to \$59.9m for the same period last year, which primarily reflects an uplift in funding for GeoNet services.

Operating expenses were \$57.5m for the half year, which represents an increase of \$1.8m over last year.

The consolidated balance sheet for GNS Science shows a current liquidity (cash and short-term investments) of \$38.0m, and a liquidity ratio of 3.3.

Half Year Summary and Highlights

Our team need to reach some of the most remote locations in Aotearoa New Zealand, including this monitoring site near Mount Ngāuruhoe.



SUPERCritical GEOTHERMAL ENERGY

In November 2024, the Government announced that up to \$60 million will be ringfenced to explore the potential of supercritical geothermal technology. GNS is proud that our science has demonstrated the potential of supercritical geothermal energy to meet a significant amount of energy demand in the future. It will also contribute to New Zealand's target for net-zero emissions by 2050.

The opportunity that GNS highlighted to the Government requires the drilling of three experimental wells in the Taupō Volcanic Zone. The first step will be the detailed design of the first exploratory deep well.

The initiative will be led by GNS and the Ministry of Business, Innovation and Employment (MBIE). The work is informed by GNS's ["Geothermal: The Next Generation" research](#) which was funded by MBIE's Endeavour Research Fund and years of other studies at the Taupo Volcanic Zone.

HIGH RESOLUTION MAPS OF NEW ZEALAND'S ACTIVE FAULTS

A major upgrade of the New Zealand Active Fault Database has been completed and released. The active faults identified in the database are those that have ruptured the ground surface during previous large earthquakes and are considered likely to rupture in the future. The updated database provides critical information for land use planning to mitigate surface rupture hazard.

Understanding the potential location of surface fault ruptures during future large earthquakes allows people to make informed decisions about where to build and make existing infrastructure more resilient to the effects of earthquakes. This is particularly useful for councils, hazard planners, infrastructure providers, as well as homeowners.

The upgraded database includes a high-resolution (1:10,000 scale or better) active fault surface trace layer on the web map. It covers the Hawke's Bay, Manawatū-Whanganui (Horizons), Tairāwhiti Gisborne and Wellington regions, as well as the northern Alpine and Wairau faults. Thousands more active fault traces can be

viewed right down to the property scale in these regions. In some areas, the web map also includes Fault Avoidance Zones and Fault Awareness Areas for the high-resolution active fault layer. More areas will be added as work progresses.

IT'S OUR FAULT PARTNER WITH PORIRUA'S TAKAPŪWĀHIA COMMUNITY

GNS has partnered with Porirua's Takapūwāhia community through the 'It's Our Fault' programme. The team has mapped the community's exposure to natural hazards and is using the information to prepare and protect people and property from future events.

GNS co-hosted a public outreach workshop with members of Ngāti Toa and the Takapūwāhia community to share the project results. The project team worked alongside Te Rūnanga o Ngāti Toa to assess and map the vulnerability of the Takapūwāhia Marae and surrounding rohe to natural hazards like earthquakes, tsunami, liquefaction, and landslides.

This information will be used to protect the community, and their land and property from future hazards or better prepare them.



It has already assisted Ngāti Toa to make important decisions about where to place emergency supplies and how to protect homes and key resources – like marae, kura, and medical centres – from natural hazards.

It's Our Fault is a collaborative research programme studying Wellington's earthquake risk. Natural Hazards Commission (NHC) Toka Tū Ake, Wellington City Council and the Wellington Regional Emergency Management Office invest in It's Our Fault to help Wellington communities build resilience to earthquakes and other natural hazards.

VANUATU EARTHQUAKE RESPONSE

On December 17, a 7.3 magnitude earthquake struck Vanuatu. The earthquake caused widespread destruction, resulting in the loss of 14 lives, triggering landslides and severely damaging homes, infrastructure, and vital services. Over 80,000 individuals were affected, with more than 265 people injured, and over 1,450 individuals displaced from their homes.

In response to a formal request from the Government of Vanuatu, the New Zealand Government provided in-kind assistance, imagery support, and approved a response package. As part of this support package, GNS provided remote engineering geology expertise. This work was delivered in collaboration with national and international partners, including the Government of Vanuatu, the Ministry of Foreign Affairs and Trade, and the NZ High Commission in Port Vila.

In early 2025 a GNS team will visit Vanuatu to provide on the ground support with landslide hazard identification and risk assessment.

AERIAL AQUIFER SURVEY PROVIDES INSIGHTS FOR HAWKE'S BAY'S FRESHWATER RESILIENCE

GNS and Hawke's Bay Regional Council have completed analysis of 8,000 kilometres of aerial aquifer survey data. This has led to the creation of three-dimensional models of the region's underground aquifers, and tools to inform the Council's water management policies.

The data was collected in a 2020 survey using state-of-the-art SkyTEM aerial electromagnetic technology, mapping aquifers across Aotearoa New Zealand. The information collected provides vital insight into where groundwater is stored, how and where it's flowing, and its connection with rivers and wetlands above ground.

Our groundwater numerical modelling team use the SkyTEM data to refine and reduce uncertainty in the numerical models used to make groundwater management decisions. This helps ensure sustainable management of this critical resource. <https://www.gns.cri.nz/news/aerial-aquifer-survey-lands-crucial-insights-for-hawkes-bays-freshwater-resilience/>

Hawke's Bay survey included funding from Hawke's Bay Regional Council and the Provincial Growth Fund administered by Kānoa – Regional Economic Development and Investment Unit.

GEOSCIENCE SOCIETY OF NEW ZEALAND AWARDS RECOGNITION

Three GNS staff were recipients of annual awards, presented at the Geosciences NZ conference this year. Biljana Lukovic (and Sophie White from the University of Otago) received the Kingma Award, which celebrates the awesome and invaluable support provided by geoscience technicians across Aotearoa.

Dan Bassett was awarded the McKay Hammer, prestigious recognition for the author of the most meritorious contribution to geology published in the previous three years. Shane Rooyackers won the Giggenbach Award, a prize given for the most outstanding geochemistry paper published by an early career author in the previous year.

MAINTAINING FINANCIAL SUSTAINABILITY

In June 2024 GNS Science embarked on a Financial Sustainability Change Programme designed to address current and future challenges for the organisation. Growing our financial sustainability is critical so we can make strategic investments – in our people, and in the assets, technologies, and capabilities required to deliver our critical science and science services now, and for years to come.

Reducing the size of our workforce alongside other cost saving measures has been a difficult but necessary step to help GNS become more financially sustainable in a challenging operating and economic environment. As part of the process, GNS undertook a rigorous consultation process, and staff feedback was considered as part of final decision-making.

GNS plays an important role in delivering science that makes a difference for New Zealand and its economy. Our work supports decision makers to keep people safe and resilient in the face of natural hazards and a changing climate. We deliver science, innovation, and technology that drives New Zealand towards a more sustainable energy future.

We have maintained diverse capabilities to deliver this critical science, while also ensuring that we have sufficient funding and resources for all our staff. As we move forward, we will continue to focus on improving our financial performance and our ability to deliver impactful science. We will optimise how we work as an organisation, identify efficiencies in our systems and processes, and secure research and commercialisation opportunities that provide new revenue.



Financial Statements

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the six months ended 31 December 2024

<i>in thousands of New Zealand dollars</i>	Unaudited 6 Months Dec-24	Unaudited 6 Months Dec-23	Audited 12 Months Jun-24
Revenue			
Research contracts	31,508	34,268	70,691
Commercial	11,256	10,234	25,039
GeoNet services	17,872	14,060	30,166
Other income	1,985	1,356	3,668
Total revenue	62,621	59,918	129,564
Operating expenses			
Employee benefit expense	38,431	34,051	67,426
Other operating expenses	19,074	21,689	49,824
Total operating expenses	57,505	55,740	117,250
Profit before interest, tax depreciation and amortisation	5,116	4,178	12,314
Depreciation	3,598	3,237	6,832
Amortisation and impairment	34	135	702
Profit before interest and tax	1,484	806	4,780
Interest income	1,001	766	1,902
Share of income from equity accounted investment	-	-	94
Profit before tax	2,485	1,572	6,776
Income tax	(696)	(440)	(2,824)
Net profit after tax	1,789	1,132	3,952
Other comprehensive income	-	-	-
Total comprehensive profit attributable to owners	1,789	1,132	3,952

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the six months ended 31 December 2024

<i>in thousands of New Zealand dollars</i>	<u>Equity reserves</u>		Total Equity
	Share Capital	Retained earnings	
Balance at 1 July 2023	6,167	33,229	39,396
Profit after tax	-	1,132	1,132
Balance as at 31 December 2023	6,167	34,361	40,528
Profit after tax	-	2,821	2,821
Balance at 30 June 2024	6,167	37,182	43,349
Profit after tax	-	1,789	1,789
Balance at 31 December 2024	6,167	38,971	45,138

CONSOLIDATED BALANCE SHEET

As at 31 December 2024

<i>in thousands of New Zealand dollars</i>	Unaudited Dec-24	Unaudited Dec-23	Audited Jun-24
Equity			
Share capital	6,167	6,167	6,167
Equity reserves	38,971	34,361	37,182
Total equity	45,138	40,528	43,349
<i>Represented by:</i>			
Non-current assets			
Property, plant and equipment	44,192	42,849	43,377
Intangible assets	63	201	98
Deferred tax	2,160	3,172	2,160
Investments	124	30	124
Total non-current assets	46,539	46,252	45,759
Current assets			
Cash and cash equivalents	25,081	18,775	26,751
Short term investments	12,903	13,854	11,134
Trade receivables	5,824	2,760	7,073
Prepayments	4,918	3,896	3,393
Current tax	-	131	-
Contract Assets	2,294	2,152	4,070
Total current assets	51,020	41,568	52,421
Total assets	97,559	87,820	98,180
Non-current liabilities			
Non-current provisions	1,798	1,882	1,664
Capital Grants from crown (long term portion)	18,067	12,370	17,361
Total non-current liabilities	19,865	14,252	19,025
Current liabilities			
Trade and other payables	10,193	9,066	11,159
Current provisions	4,471	4,659	4,430
Contract liabilities	15,233	17,148	16,622
Capital Grants from crown (current portion)	2,049	1,774	1,961
Provision for income tax	610	393	1,634
Total current liabilities	32,556	33,040	35,806
Total liabilities	52,421	47,292	54,831
Net assets	45,138	40,528	43,349

For and on behalf of the Board:



David Smol
Chair
26 February 2025



Wendy Venter
Board member
26 February 2025

CONSOLIDATED STATEMENT OF CASH FLOWS

For the six months ended 31 December 2024

<i>in thousands of New Zealand dollars</i>	Unaudited 6 Months Dec-24	Unaudited 6 Months Dec-23	Audited 2 Months Jun-24
Cash flows from operating activities			
<i>Cash was provided from:</i>			
Receipts from customers	63,908	64,552	125,693
Interest received	643	582	1,937
	64,551	65,134	127,630
<i>Cash was applied to:</i>			
Payments to suppliers and employees	(60,321)	(55,057)	(113,871)
Income tax paid	(1,720)	-	-
	(62,041)	(55,057)	(113,871)
Net cash flows from operating activities	2,510	10,077	13,759
Cash flows from investing activities			
<i>Cash was provided from:</i>			
Sale of property, plant, equipment and intangible assets	-	-	9
Receipts of capital funding in advance	2,000	-	6,700
Maturity of short-term investments	2,230	11,586	19,140
	4,230	11,586	25,849
<i>Cash was applied to:</i>			
Purchase of property, plant, equipment and intangible assets	(4,410)	(4,616)	(9,752)
Placement of short-term investments	(4,000)	(11,819)	(16,652)
	(8,410)	(16,435)	(26,404)
Net cash flows used in investing activities	(4,180)	(4,849)	(555)
Net increase in cash and cash equivalents	(1,670)	5,228	13,204
Opening cash and cash equivalents	26,751	13,547	13,547
Closing cash and cash equivalents	25,081	18,775	26,751

The accompanying notes form part of these financial statements

Notes to and forming part of the condensed consolidated interim financial statements

For the six months ended 31 December 2024

01. REPORTING ENTITY AND ACTIVITIES

The Institute of Geological and Nuclear Sciences Limited (trading as GNS Science) is established under the Crown Research Institutes Act 1992 and the Companies Act 1993. Its subsidiary companies are established under the Companies Act 1993. These financial statements have been prepared in accordance with the Crown Research Institutes Act 1992, the Public Finance Act 1989, the Companies Act 1993, the Crown Entities Act 2004, the Financial Reporting Act 2013 and New Zealand generally accepted accounting practice (NZ GAAP).

The principal activities of the Group are to undertake geoscience and isotope science research, development and commercial projects, predominantly in New Zealand. GNS Science International Limited holds a 50% interest in EDDI Project, an unincorporated joint operation formed to undertake a contract for dam hazard management in Vietnam. The wholly owned subsidiaries of the Institute of Geological and Nuclear Sciences Limited (the Parent) are:

- IsoScan Limited
- IsoScan Food Limited
- Geological Surveys (New Zealand) Limited
- Geological Risk Limited
- GNS Science International Limited.

These unaudited condensed consolidated interim financial statements are for the six months ended 31 December 2024 and were approved by the Board on 26 February 2025.

02. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

These unaudited condensed consolidated interim financial statements for the six months ended 31 December 2024 do not include all the notes of the type normally included in an annual financial report but have been prepared using the same accounting policies and methods of computation, and should be read in conjunction with, the financial statements and related notes included in the Group's Annual Report for the year ended 30 June 2024.

The financial statement figures for the six-month period ended 31 December 2024, and for the comparative six-month period to 31 December 2023 are unaudited. The figures for the year ended 30 June 2024 are audited. The same significant judgements, estimates and assumptions included in the notes to the financial statements in the Group's Annual Report for the year ended 30 June 2024 have been applied to these unaudited condensed consolidated interim financial statements. These financial statements are presented in New Zealand dollars which is the Group's functional currency. Amounts have been rounded to the nearest thousand dollars.

03. RELATED PARTY TRANSACTIONS

The New Zealand Government is the ultimate shareholder of the Parent. No other transactions with New Zealand Government owned entities are considered as related party transactions in terms of NZ IAS 24 *Related Party Disclosures*.

KEY MANAGEMENT PERSONNEL

Key management personnel, considered to be the Directors and Executive Management, are those people with responsibility and authority for planning, directing and controlling the activities of the entity.

The Group purchases directors and officers insurance for the benefit of key management personnel in relation to the services they provide to the Group.

<i>in thousands of New Zealand dollars</i>	Unaudited 6 Months Dec-24	Unaudited 6 Months Dec-23	Audited 12 Month Jun-24
Key management personnel compensation comprised:			
Directors fees	175	137	272
Salaries and benefits for the Executive Leadership Team	1,154	1,000	2,144
Total key management personnel compensation	1,329	1,137	2,416

04. RECONCILIATION OF PROFIT AFTER TAX TO NET CASH FLOWS FROM OPERATING ACTIVITIES

<i>in thousands of New Zealand dollars</i>	Unaudited 6 Months Dec-24	Unaudited 6 Months Dec-23	Audited 2 Month Jun-24
Profit after tax	1,789	1,132	3,952
<i>Add/(less) items classified as investing activities:</i>			
Net gain on disposal of property, plant and equipment	-	-	549
Share of income from Joint Ventures	-	-	(94)
	-	-	455
<i>Adjust non-cash items:</i>			
Depreciation	3,598	3,237	6,832
Amortisation	34	135	265
Impairment	-	-	437
Decrease in credit allowance for doubtful debts	-	-	(5)
Amortisation of capital grant	(1,206)	(943)	(2,465)
Increase in provision for income tax	696	440	1,809
Decrease in deferred tax	-	-	1,012
Increase in non-current provisions	134	259	41
	3,256	3,128	7,926
<i>Add/(less) movements in working capital items:</i>			
Decrease/(increase) in trade receivables and prepayments	(277)	5,304	1,491
(Decrease) in payables, current provisions, revenue in advance	(2,314)	(1,463)	(122)
Decrease in work in progress	1,776	1,976	57
	(815)	5,817	1,426
Income tax paid	(1,720)	-	-
	(1,720)	-	-
Net cash flows from operating activities	2,510	10,077	13,759

05. DIVIDEND

No dividends were declared by the Group for the six months ended 31 December 2024 (2023: Nil)

06. COMMITMENTS

Non-cancellable operating lease commitments

Operating lease payments are recognised on a systematic basis representing the pattern in which economic benefits from the leased asset are consumed over the lease term.

Leases are classified as finance leases whenever the terms of the lease transfer a significant portion of all of the risks and rewards of ownership to the lessee. All other leases are classified as operating leases. The Group has no leases which would be classified as finance leases.

Operating lease commitments

<i>in thousands of New Zealand dollars</i>	Unaudited 6 Months Dec-24	Unaudited 6 Months Dec-23	Audited 12 Months Jun-24
Within one year	329	134	443
Between one and five years	181	147	288
Over five years	1	3	2
	511	284	733

07. PROVISIONS AND CONTINGENT LIABILITIES

Prior to 30 June 2024, the Group commenced a financial sustainability change programme that included a review of the capacity and capability required to continue to deliver our critical science and science services. The review considered the size of the Group's workforce alongside other cost saving and efficiency measures. In the six months ended 31 December 2024 the Group undertook a consultation process with staff with the outcome announced on 24 September 2024. For the six months ended 31 December 2024 the redundancy costs and related expenses are \$3.8m.

(31 December 2023: A provision was made for the most probable outcome, as discussed with our Legal representative, of the penalty for the charge against GNS Science under the Health and Safety at Work Act 2015 relating to the 2019 eruption on Whakaari/White Island. This was determined and settled in March 2024).

08. EVENTS AFTER THE BALANCE DATE

On 23 January 2025, the Prime Minister announced changes to the New Zealand science system. These reforms will include bringing together GNS Science and National Institute for Water and Atmospheric Research Limited into a new Public Research Organisation. (31 December 2023 : Nil).

Statement of Responsibility

The Board is responsible for the preparation of the Group's half year financial statements and for the judgements made in them.

The Board through management is responsible for establishing and maintaining a system of internal control designed to provide reasonable assurances as to the integrity and reliability of the financial reporting.

In the opinion of the Board, the financial statements for the six months ended 31 December 2024, fairly reflect the financial position and operations of GNS Science.

For and on behalf of the Board:



David Smol
Chair
26 February 2025



Wendy Venter
Board member
26 February 2025



The Wairakei geothermal power station in Taupō



PRINCIPAL LOCATION AND REGISTERED OFFICE

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Felicity Evans
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Andrew Cordner
Livia Esterhazy
Wendy Venter
Paul White
Brian Young

EXECUTIVE LEADERSHIP TEAM

Chelydra Percy
Chief Executive
Peter Benfell
General Manager Science and
Commercial Operations
Trish Casey
General Manager People and Culture
Tania Gerrard
General Manager Māori and
Government Relations
Richard Levy
General Manager Science Futures
Kaetrin Stephenson
General Manager Business Services
and Chief Financial Officer

BANKERS

ANZ

AUDITOR

Silvio Bruinsma
Deloitte Limited
On behalf of the Auditor-General

SOLICITORS

Chapman Tripp

WEBSITES

www.gns.cri.nz
www.geonet.org.nz

PHOTO ACKNOWLEDGEMENTS

Cover
Jeff Brass

Inside front cover
Alex Wallace Photography

P4
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P7
Jeff Brass

Inside back cover
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