MinEx CRC

2026 YEAR IN REVIEW

Advancing technology, building capability and creating lasting value for mineral exploration.



Australian Government
Department of Industry, Science and Resources

Cooperative Research Centres Program

KEY NUMBERS



24
PARTICIPANT SPONSORS



14
AFFILIATE SPONSORS



23
PEER-REVIEWED SCIENTIFIC PUBLICATIONS



6
ARTICLES
by prominent industry outlets on MinEx projects



27
ACTIVE
HDR students (25 PhD and 2 Masters by Research)



30
COMPLETED
Postgraduate completions achieved to date (22 PhDs and 8 Masters by Research)



7
LICENCES EXECUTED SINCE 2024



149
ANNUAL CONFERENCE DELEGATES



261,000+
LINKEDIN IMPRESSIONS



45,000+
WEBSITE VISITORS



130 OF 141
PHASE 3 QUARTERLY PROJECT MILESTONES

100% OF OPPORTUNITY FUND MILESTONES ACHIEVED

RESEARCH FOCUS

1. Delivering field-tested technologies for safer, faster, cheaper and cleaner mineral exploration.
2. Accelerating commercialisation and industry adoption of CRC-developed technologies.
3. Creating a lasting research, workforce and knowledge legacy for the exploration sector.



TECHNICAL HIGHLIGHT STATISTICS

LOOP
DOWNLOADED IN 169 COUNTRIES

23,000
CUMULATIVE LOOP SOFTWARE DOWNLOADS

16
EXPLORATION RELEASE AREAS IDENTIFIED
through Northern Gawler research outcomes

5
COMPANIES GRANTED EXPLORATION TENEMENTS
through the Northern Gawler ERA process

3,000+ m
OF FDEM LOGGING COMPLETED
during deep borehole deployments

88
REGISTERED IP CASES
(largest portfolio to date)

ADVANCING TECHNOLOGY

Drilling Optimisation and Automation

Developing automated systems to improve the efficiency, productivity and environmental performance of conventional drilling.

- Fluid Automation moved from prototype testing into deployment and commercialisation
- Field results demonstrated 38% higher productivity, 11% lower water use and 47% improved core recovery
- Frontier Drilling Analytics provides commercial pathway



Coiled Tubing Drilling

Advancing steerable coiled tubing drilling technology to provide new options for mineral exploration.

- A successful steering-while-drilling trial was completed using AnTech tooling
- RoXplorer® demonstrated the ability to maintain and correct borehole direction during field testing
- Additional funding secured to continue development



Downhole Assay (LIBS)

Developing technology to analyse geological material downhole and provide valuable information during drilling.

- New electronics, software and LIDAR were integrated into the system
- A new winch system was engineered to support mine-site deployment
- Commercialisation planning continued alongside patent protection

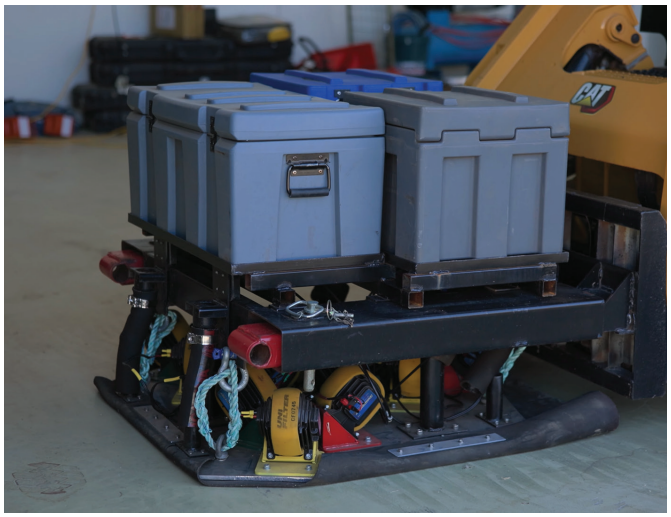




Logging While Drilling Petrophysics

Developing tools to collect important geological and geophysical information while drilling.

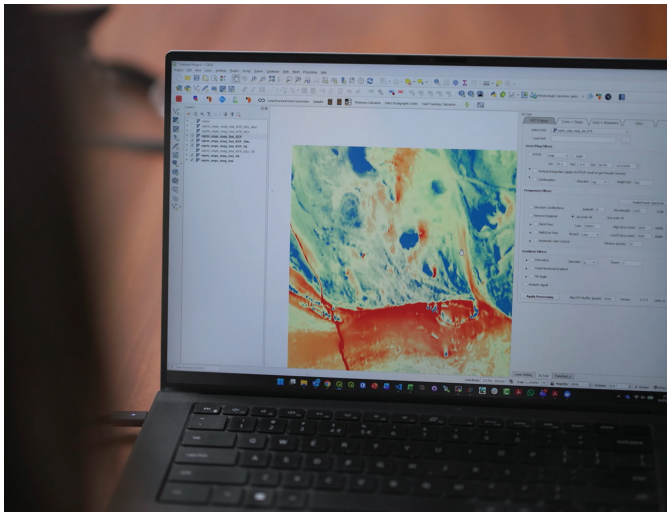
- FDEM field trials confirmed correlation with conventional logging tools
- Deep deployment was successfully achieved to 900 metres
- International patent filings progressed



Seismic in the Drilling Workflow

Exploring new ways to use seismic technology within drilling programs to better image geological structures below the surface.

- Successful seismic tomography inversion was completed
- Distributed Acoustic Sensing demonstrated the ability to image geological structures between drill holes
- Patent and commercialisation pathways advanced



Automated 3D Modelling

Developing digital tools that make it easier to create and update 3D geological and geophysical models.

- QGIS plugins expanded access to the Loop suite of geological and geophysical modelling tools
- SGTool and tomofast-x ArcGIS Toolbox plugins were completed, with workflows enabling updates across QGIS and ArcGIS
- National and international workshops with Geological and Geoscience Australia supported software adoption

NATIONAL DRILLING INITIATIVE



MinEx CRC continued to unlock new geological insights through research associated with National Drilling Initiative campaigns in the Nifty region and Northern Gawler Craton. FY26 activities focused on analysing drilling, geochemical and geophysical datasets to improve understanding of mineral systems, prospectivity and regional geology.

The research informed new exploration opportunities, supported Geological Survey programs and delivered valuable pre-competitive data that helps de-risk mineral exploration in frontier regions across Australia.

CASE STUDY

From Research to Commercial Reality: Fluid Automation

MinEx CRC's drilling fluid automation technology has progressed from early-stage research to commercial deployment through a structured development pathway spanning the iFluid, Hobby and UN platforms. Developed and refined through extensive field testing, each generation improved system capability, automation and operational readiness while demonstrating the value of real-time drilling fluid management.

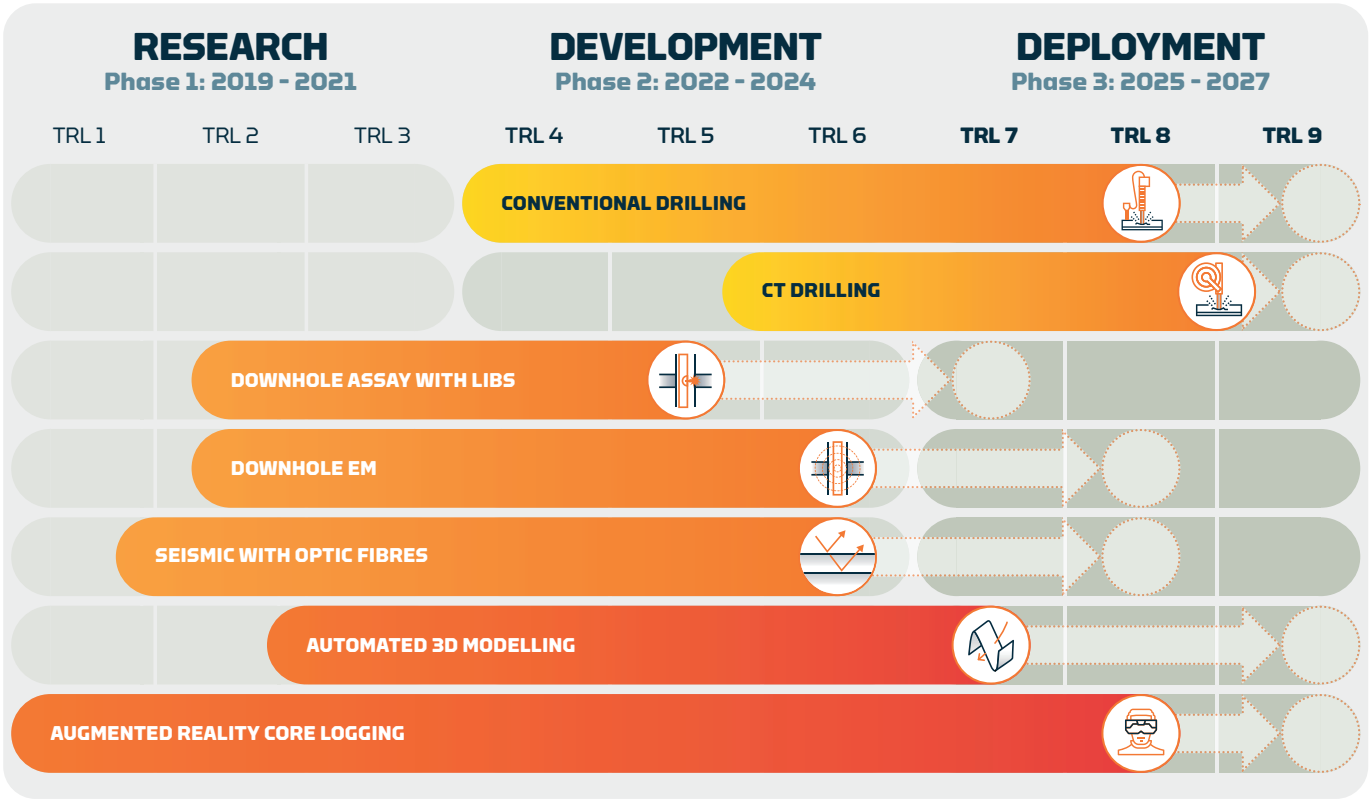
Working alongside industry partners, the technology was deployed in operational drilling programs where independent results demonstrated a 38% increase in metres drilled per shift, an 11% reduction in water use, and a 47% improvement in core recovery per metre drilled. These outcomes highlight the potential for automation to improve productivity while reducing environmental impacts.

The success of the program has supported the establishment of Frontier Drilling Analytics, a Curtin University spin-out company commercialising drilling fluid automation technologies developed through the MinEx CRC framework. A further licence agreement with US-based XtremeX Mining Technology is enabling the technology to be incorporated into next-generation drilling systems, demonstrating how MinEx CRC research is creating lasting industry impact both in Australia and internationally.



From prototype development to international commercial adoption, MinEx CRC's drilling fluid automation technology demonstrates how collaborative research can deliver practical benefits for the minerals exploration industry.

TECHNOLOGY READINESS LEVELS | JUNE 2026



PROJECT KEY:

CONVENTIONAL DRILLING
50% productivity improvement in conventional drilling systems

COIL TUBE DRILLING
Cheaper, faster, safer drilling for mineral exploration

DOWNHOLE ASSAY WITH LIBS
Accurate ppm assay across the periodic table

DOWNHOLE EM
Swept frequency EM tool for electrical and magnetic properties

SEISMIC WITH OPTIC FIBRES
Low-cost rapid deployment seismic options

AUTOMATED 3D MODELLING
Rapid, probabilistic geological models

AUGMENTED REALITY CORE LOGGING
Multi-user interactive core logging enhanced with data overlay

COMMERCIALISATION PROGRESS

MinEx CRC research is transitioning into independent organisations, commercial applications and ongoing industry use.

CoilRig
CoilRig is commercialising coiled tubing drilling technology developed through MinEx CRC, using the CT500 design and associated intellectual property under licence.

Frontier Drilling Analytics
This Curtin University spin-off is commercially applying drilling fluid automation technology developed through MinEx CRC and Curtin research, supported by existing licence arrangements.

Loop3D Foundation
Loop3D Foundation Ltd has been established to continue the development and support of the open-source Loop3D geological modelling platform beyond the life of MinEx CRC.

SwiftMin®
MinEx CRC assigned its rights in the SwiftMin® mineral identification and quantification software to CSIRO, supporting its continued development and future industry use.

Future commercialisation
Commercialisation planning is embedded across all six Phase 3 technical projects, helping position research outcomes for industry adoption and lasting impact beyond MinEx CRC.

BUILDING CAPABILITY AND LEGACY





Education & Training

MinEx CRC's Education and Training Program continued to build capability across the minerals sector by supporting postgraduate research, industry engagement and professional development:

10 postgraduate students qualified for their degrees during FY26, with 3 subsequently securing employment with MinEx CRC Participants or Research Participants.

30 postgraduate completions have now been achieved, comprising 22 PhDs and 8 Masters by Research, with a further 27 students actively enrolled at 30 June 2026.

4 Company Sponsored Projects provided students with opportunities to undertake industry-aligned research and engage directly with industry.

9 postgraduate engagement sessions were delivered during the year, supporting professional development, knowledge sharing and connections across the student cohort.

23 of 35 enrolled students attended the 2025 Annual Conference.

9 students participated in the 2026 Mid-Year Science Review, with 3 presenting technical updates.

5 Masters by Coursework students completed MinEx CRC-related research projects during the reporting period.

1 student completed an internship with the Geological Survey of Western Australia, gaining practical experience within the minerals sector.

Communications & Engagement

MinEx CRC continued to build awareness and impact through strategic communications, industry engagement and knowledge sharing:

85+ LinkedIn posts generated more than 261,000 impressions and reached more than 85,000 people during FY26.

The MinEx CRC website attracted 45,000+ visitors, extending access to research, news, publications and project outcomes.

2 vNews updates highlighting significant research outcomes were published, with total YouTube views exceeding 15,600.

MinEx CRC research outcomes were featured across leading industry publications, including Australian Mining, Australasian Drilling, Coring Magazine, Mining.com.au and Precompetitive Review.

Researchers produced 23 peer-reviewed scientific publications, contributing to the CRC's growing body of research and knowledge.

The 2025 Annual Conference attracted 149 delegates from 31 organisations.

The 2026 Mid-Year Science Review brought together 89 attendees from 23 organisations.

3 MiNext workshops supported stakeholder engagement and discussion around opportunities for continued collaborative research following the completion of MinEx CRC.



Equity, Diversity and Inclusion

MinEx CRC continued to build an inclusive and supportive research community through making its EDI Survey Report publicly available on request, ongoing implementation of its EDI Action Plan, and initiatives that promote diverse participation across events, workshops and CRC activities.

Percentage of Board (excluding the CEO)



43% Female 57% Male

The MinEx CRC Board (excluding the CEO) comprises seven members, 43% female and 57% male.

Percentage of Executive Management Committee, including CEO



45% Female 55% Male

The MinEx CRC Executive Management Committee, including the CEO, comprises nine members, 45% female and 55% male.

Percentage of Research Leads for the eleven primary projects



36% Female 64% Male

Research Leads for the eleven primary projects are 36% female and 64% male.

COLLABORATION, REACH & FUTURE CRC



Collaboration Highlights

Awards

MinEx CRC researchers, leaders and alumni were recognised for their outstanding contributions to research, innovation, collaboration and inclusion during FY26. Awards received throughout the year reflected the strength of the CRC community and the real-world impact of its research and people.

Caroline Tiddy received the inaugural Nell Ludbrook Medal for Championing Inclusive Culture from the Geological Society of Australia, recognising leadership and commitment to equity, diversity and inclusion in geoscience.

David Giles was awarded the Joe Harms Medal by the Geological Society of Australia for significant contributions to mineral exploration and advancing understanding of ore body formation.

Kristie Young was named Alumna of the Year at the Women's College Alumnae Awards at the University of Queensland.

Masood Mostofi received Emerging Collaboration of the Year at the Cooperative Research Australia Excellence in Innovation Awards for the development and commercialisation of automated drilling fluid technologies through MinEx CRC and industry partnerships.

Travis Batch was awarded the Ian Wark Research Medal, recognising the most outstanding graduate from the Future Industries Institute at Adelaide University.

International Reach

MinEx CRC continued to strengthen its international profile during FY26 through research collaboration, conference participation and engagement with the global minerals sector. Researchers presented MinEx CRC outcomes at major industry and scientific conferences in China, New Zealand, Spain, France and the United Kingdom, helping to showcase Australian innovation in mineral exploration technologies and research.

The CRC also continued to build international connections through collaborative research, technology development, knowledge exchange activities and commercialisation deployment. These partnerships support the adoption of MinEx CRC technologies, expand research networks and ensure Australian exploration research contributes to addressing global challenges in mineral discovery.

Research outcomes generated through MinEx CRC are increasingly reaching international audiences, with technologies such as Loop software now used in 169 countries and commercialisation activities creating pathways for global industry adoption. Together, these activities are extending the impact of MinEx CRC research well beyond Australia and helping position Australian exploration innovation on the world stage.

- China
- New Zealand
- France
- United Kingdom
- Senegal (West Africa)
- United States

Looking Ahead

MinEx CRC research delivery will conclude in 2027, with Commonwealth obligations continuing through 2028. Stakeholder workshops are exploring future collaborative research opportunities, with strong support emerging for a successor CRC to continue advancing Australia's minerals exploration capability.

REVENUE & EXPENDITURE

Revenue ($'000)	FY26	FY25	FY24	FY23	FY22	FY21	FY20	FY19	Cumulative Total
Commonwealth Funding	5,500	5,500	5,500	5,500	5,500	5,798.5	6,597	2,729.5	42,625
Other Government Grants	75	48	425	28	-	-	-	-	576
Participant Contributions	3,234.7	3,300.6	3,540	6,421.1	5,600	7,023	4,811.8	12,067.5	45,998.7
Affiliates Contributions	165	313	295	215	210	185.1	285	150	1,818.1
DET CRC Unspent Participant Contributions	-	-	-	-	-	-	-	113.6	113.6
Non-financial asset acquired for Nil Consideration	-	-	-	-	-	-	850	-	850
Gain on Sale of CT System to DIG CT Pty Ltd	-	-	1,301	-	-	-	-	-	1,301
Interest Income - Finance Lease CT System	-	37.3	20.5	-	-	-	-	-	57.8
Interest Income	361.2	352.1	465.8	365.3	70.1	112.9	300.5	124	2,151.9
Royalty Income	100	122.5	280	127.4	52.1	34.1	-	-	716.1
Other Income	184.9	97.5	123.7	18.1	79.8	9.6	122.2	30.8	666.6
Total Revenue	**9,620.8**	**9,771**	**11,951**	**12,674.9**	**11,512**	**13,163.2**	**12,966.5**	**15,215.4**	**96,874.8**

Expenditure ($'000)									
Research Program Expenditure									
- Core Research Projects	5,023.5	5,183.6	5,419.2	5,025.7	5,236.6	6,070.5	5,355.8	1,684.4	38,999.3
- Drilling Campaigns	428.8	3,061	2,859.3	5,074.1	3,647.7	8,521.5	150	-	23,742.4
- Opportunity Fund & Other Projects	206	737.8	993	759.8	580.2	204.8	-	-	3,481.6
Total Research Program Expenditure	**5,658.3**	**8,982.4**	**9,271.5**	**10,859.6**	**9,464.5**	**14,796.8**	**5,505.8**	**1,684.4**	**66,223.3**
Education & Training	345.5	438.6	552.8	575.4	432.3	504.4	384.5	200	3,433.5
Management Expenses	555.1	569.3	845.7	841.3	717.3	418.2	492.3	503.8	4,943
Royalty Expense	78.7	75.2	104.2	85.5	28.7	22	-	-	394.3
Salaries & Wages - Drill Crew	-	92.2	1,099.2	1,372.3	987.8	97.2	-	-	3,648.7
Salaries & Wages - Head Office (incl Directors Fees)	1,606.1	1,627.8	1,218.1	1,167.4	1,049.8	1,046.7	996.9	1,005.3	9,718.1
Impairment Loss Allowance - Finance Lease CT System	7.5	122	-	-	-	-	-	-	129.5
Impairment Loss Allowance - Assets Held for Sale	712	-	-	-	-	-	-	-	712
Other Expenses	-	28.4	-	-	-	-	-	-	28.4
	3,304.9	**2,953.5**	**3,820**	**4,041.9**	**3,215.9**	**2,088.5**	**1,873.7**	**1,709.1**	**23,007.5**
Total Expenditure	**8,963.2**	**11,935.9**	**13,091.5**	**14,901.5**	**12,680.4**	**16,885.3**	**7,379.5**	**3,393.5**	**89,230.8**
Restricted Surplus/ (Deficit)	**657.6**	**(2,164.9)**	**(1,140.5)**	**(2,226.6)**	**(1,168.4)**	**(3,722.1)**	**5,587**	**11,821.9**	**7,644**

SPONSORS

Majors, METs & Survey Participants



































Research Participants & Affiliates









































MinEx CRC

Australian Government
Department of Industry, Science and Resources
Cooperative Research Centres Program

CONTACT

Andrew Bailey, CEO MinEx CRC
M +61 409 617 286 | **E** andrew.bailey@minexcrc.com.au