PROGRAM 3: NATIONAL DRILLING INITIATIVE

ANTHONY BUDD
PROGRAM 3 LEADER
MinEx CRC

MinEx CRC Annual Conference: Frontier Exploration
13th November 2019

Majors, METS and Survey Participants (16)
The National Drilling Initiative (NDI) will manage and deliver drilling programs in multiple case study areas proposed by MinEx CRC’s partner Geological Survey Organisations. The NDI vision is to drill multiple holes in a region to map the regional geology and architecture and define the potential for mineral systems in 3D. A range of drilling methods may be used however it is intended that the NDI will take advantage of new low-cost Coiled Tubing (CT) drilling technology and associated sensing, in order to maximise the number of drill holes and the volume of data collected. A single point of access to NDI drilling data for all stakeholders will be delivered, inclusive of a data management and delivery system, geospatial and data analytical tools and drill target optimisation algorithms.
PROJECT 7: Maximising the value of data and drilling through cover

LEADER: Matilda Thomas

PARTICIPANTS: CSIRO, GA, GSWA, GSSA, GSNSW, (GSV, GSQ, MRT, NTGS)

RESOURCES: $806.5k (cash) + $3.07M (in-kind)

PERFORMANCE TARGET (Life-of-MinEx CRC):
A single point of access to digital data and data analytics delivered by the NDI program (including legacy sampling and analyses) which is seamlessly linked to the relevant State/Territory Survey and Geoscience Australia databases. Workflows for extracting data, 3D visualization/modelling and multidimensional data analytics can be accessed on one platform within 24 hours of data collection.

PROJECT 8: Geological Architecture and Evolution

LEADER: Alan Collins (outgoing), Rian Dutch (incoming)

PARTICIPANTS: GSNSW, GSWA, GSSA, GA, Curtin University, CSIRO, UAd, UniSA, UoN, ANU, (GSV, GSO, MRT, NTGS)

RESOURCES: $3.43M (cash) + $6.20M (in-kind)

PERFORMANCE TARGET (Life-of-MinEx CRC):
Deliver geoscience data from the NDI case study areas with data density that allows for construction of 4 dimensional geological models at an appropriate scale for the NDI area. Key units and boundaries identifiable will be mapped and populated with appropriate geological, geochronological and petrophysical data. Improvement in data density and quality will measured by comparison with pre-NDI compilations.
PROJECT 9: Targeting Mineral Systems in Covered Terranes

LEADER: Alex Otto

PARTICIPANTS: GSNSW, GSWA, GSSA, GA, Curtin University, CSIRO, UAd, UniSA, UoN, (GSV, GSQ, MRT, NTGS)

RESOURCES: $1.25M (cash) + $1.29M (in-kind)

PERFORMANCE TARGET (Life-of-MinEx CRC):
Province- to camp-scale, 4 dimensional mineral systems models for the NDI case study areas. The models will facilitate mineral exploration decisions and provide the framework for decades of future mineral discovery, including for unexpected ore deposit styles or new commodities.
Prospecivity mapping TISA

Distance to Felsic intrusives as source of fluids and energy

Scheme in ArcToolbox
ArcToolbox menu where weights may be adjusted

GA – East Tennant – 2020
SA – Delamerian – 2021
Vic – Tabberabberan – 2021
NSW – Sth Cobar – 2022
WA – West Arunta – 2022
NSW – Nth Cobar – 2023
NSW – Mundi – 2024
NSW – Forbes – 2025
NSW – Dubbo – 2026
Tasmania – Tamar – ?

THIS LIST IS NOT FINAL OR EXHAUSTIVE!!