

# The Jibal Qutman Gold Project

## Kingdom of Saudi Arabia

Deposit-Scale Structural Models in an Underexplored Terrane  
to Drive Discoveries





# Gold and Minerals Company



Gold and Minerals Co. is a JV between **Abdulrahman Saad Al Rashid** (ARTAR) and **KEFI Gold and Copper** (KEFI)

Set up in 2009 to explore the Saudi Arabian portion of the Arabian Nubian Shield

Two major discovery projects at **Hawiah (29.0Mt Cu/Au VMS)** and **Jibal Qutman (700koz+ orogenic gold deposit)**, both of which are in feasibility assessment stages with JQ targeting construction in 2024.

Regional Exploration is taking place across multiple other licences around KSA primarily focusing the discovery of additional VMS and Orogenic deposits

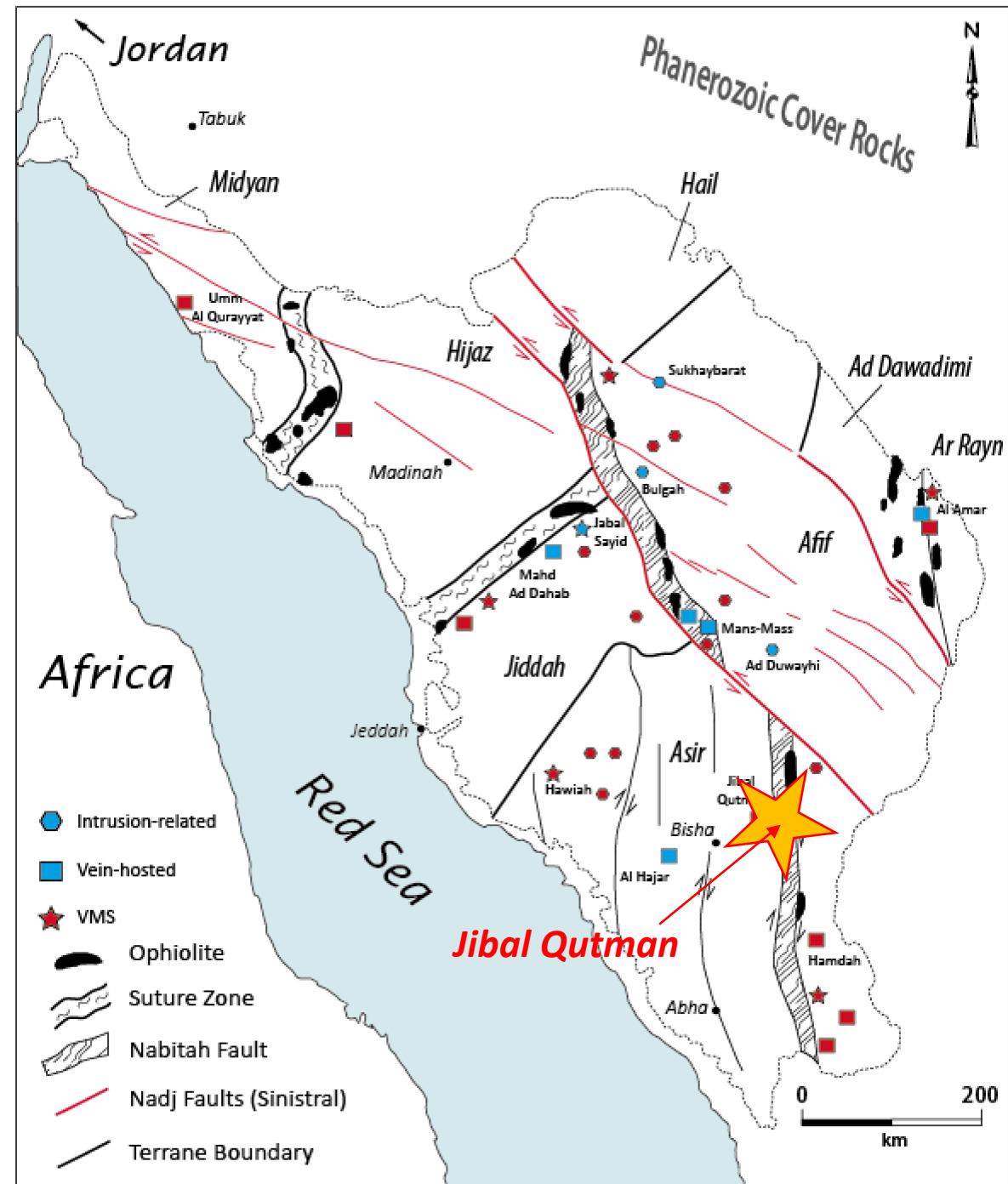
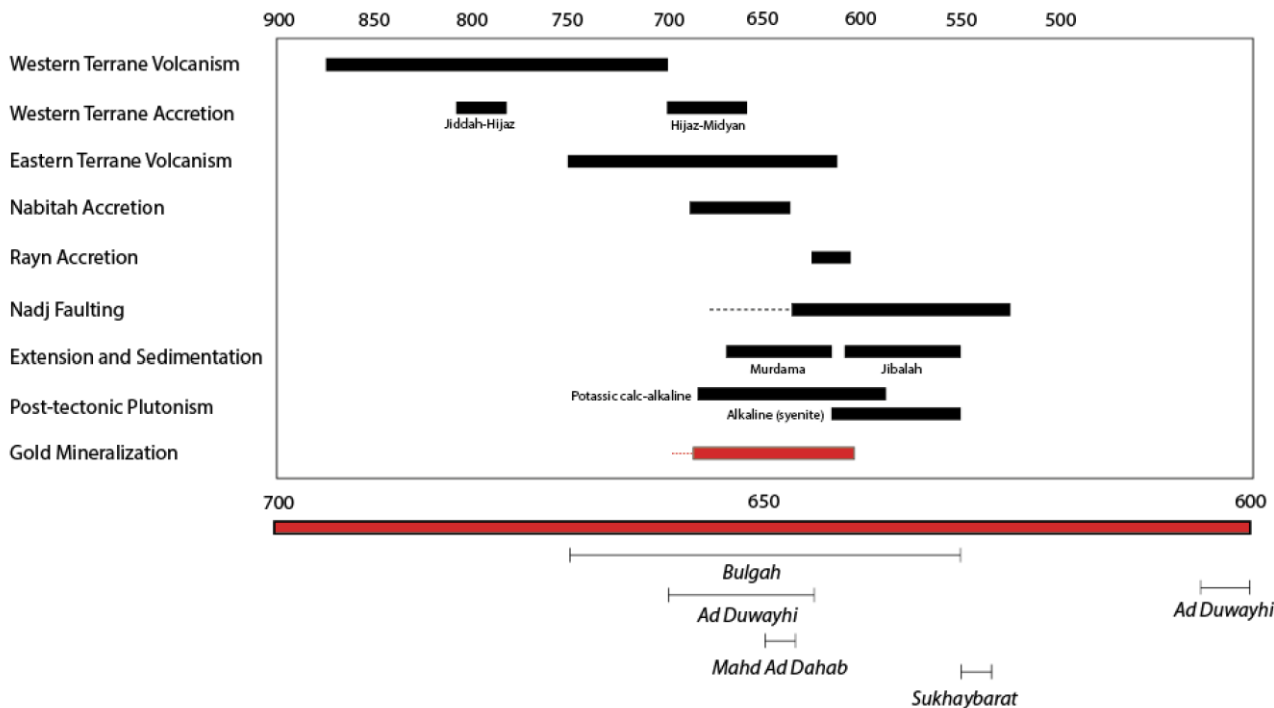
Exploration Team of 16 national and international geologists work across these project sites



# Arabian Shield Geology

Complex amalgamation of older western intra-arc volcanic terranes and younger eastern continental margin arc terranes.

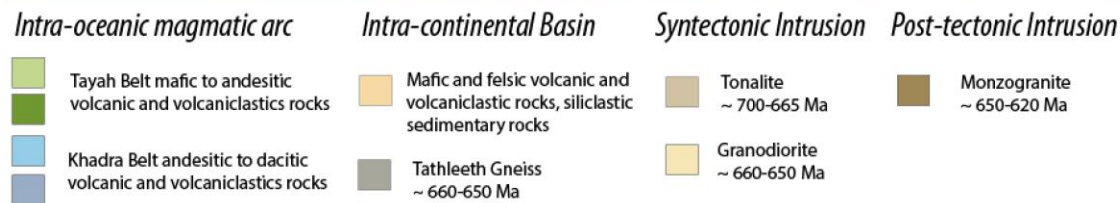
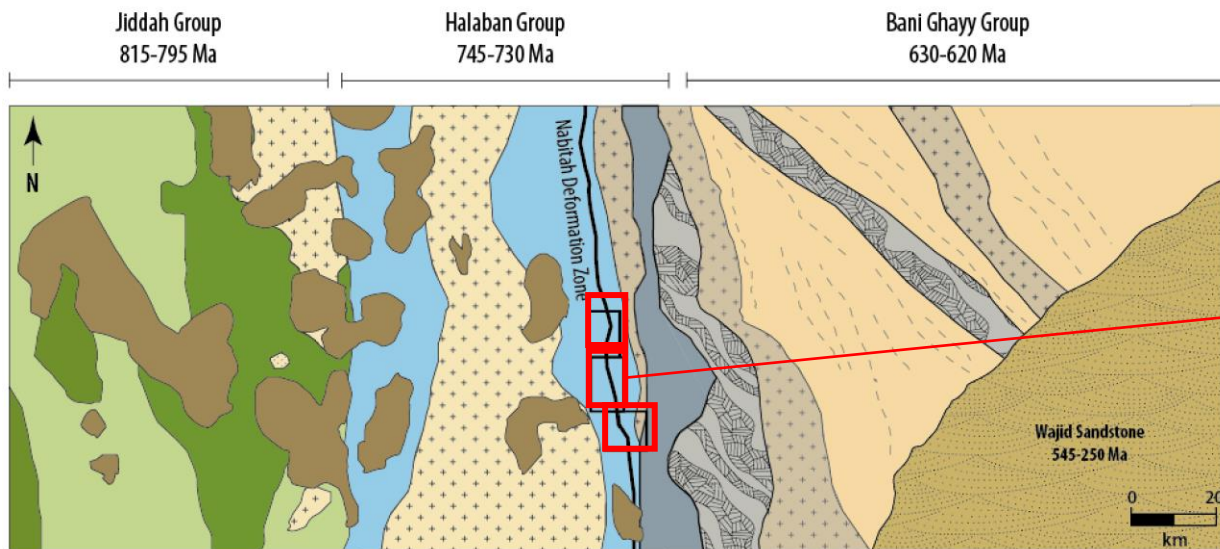
Heterogeneous orientation of greenstone belts between terranes with diverse geodynamic responses to regional strain and accretion.



Modified after Nehlig, 2002 and El-shafei et al., 2020

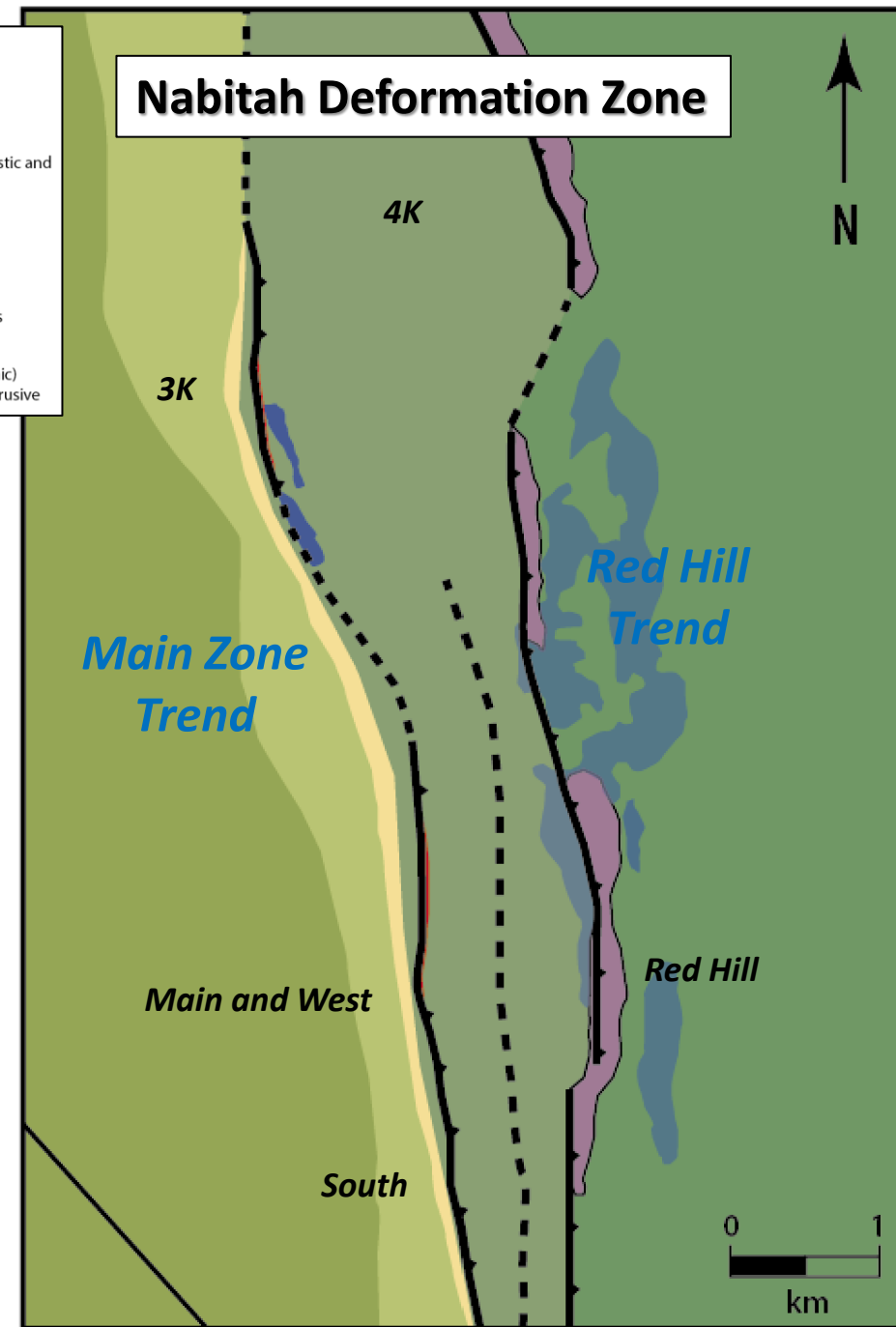
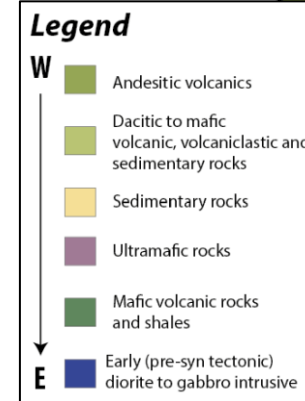
# Jibal Qutman Gold Project

The Nabatah suture is defined as a wide deformation zone characterized by multiple thrust faults, ophiolites, zones of high strain and complex internal geometries.



Modified after USGS 250K 103C and 97C geological maps  
 altered and mineralized diamond drillcore

Laminated quartz-carbonate vein



Modified after USGS 250K 20F geological map



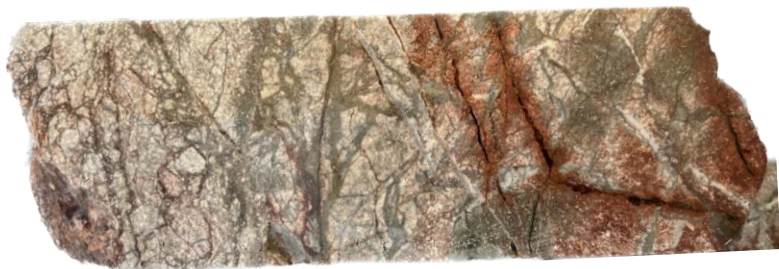
# Jibal Qutman Gold Project

**Jibal Qutman is a typical orogenic ‘mesothermal’ shear hosted gold deposit.**

The mineralised system is closely related to the N-S striking Nabitah deformation zone, hosted within a suite of intermediate to ultramafic volcanic and volcanoclastic units with shale horizons and intrusives.

Gold mineralisation is associated with strike extensive quartz veins and stockwork zones with pyrite-albite-carbonate-sericite alteration assemblages. Ultramafic and sulphidized mafic volcanic rocks are hosts of mineralization along the Red Hill trend.

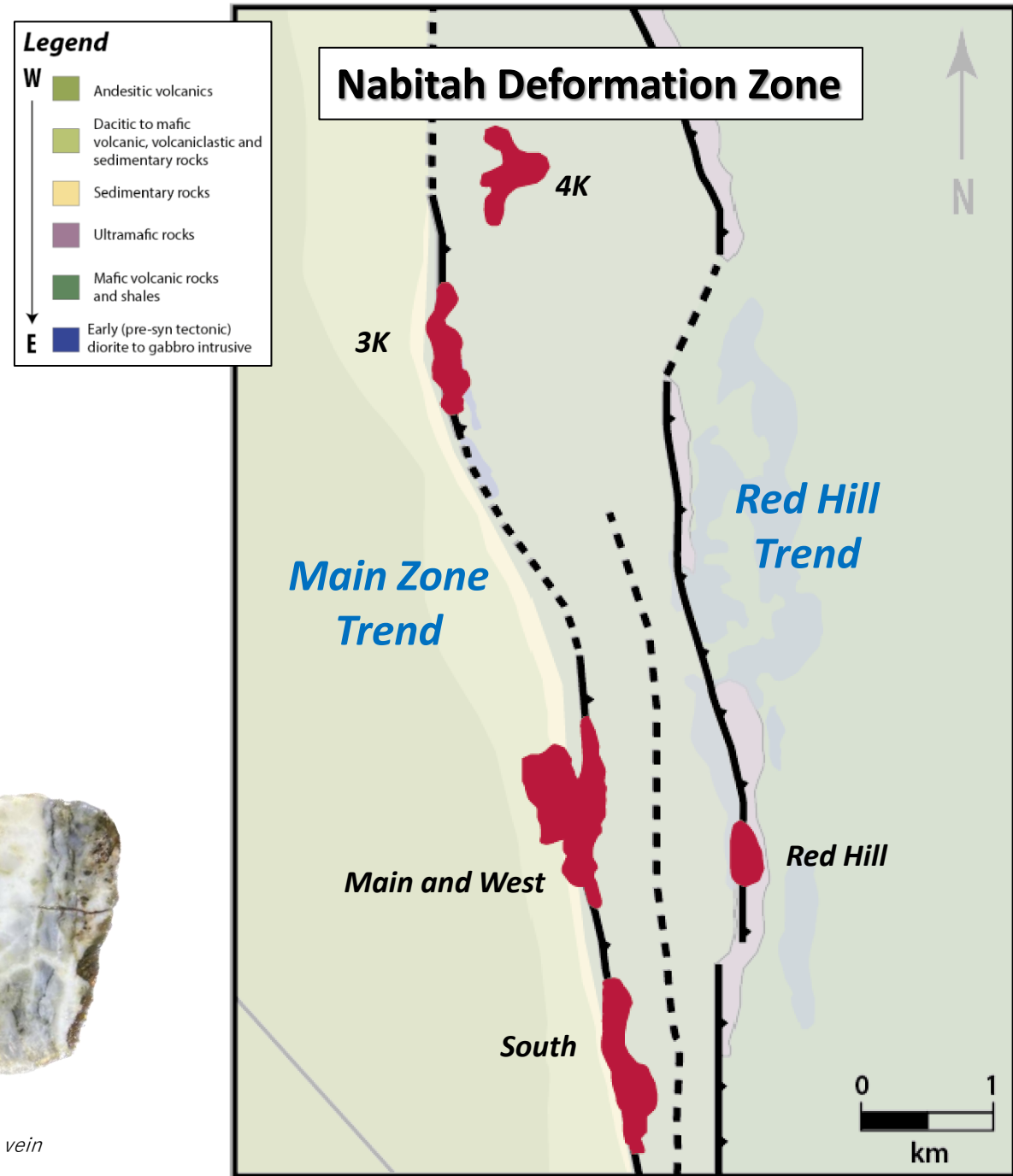
Resources are currently constrained by **69,000m** of DD and RC drilling with six main open pittable zones



Modified after USGS 250K 103C and 97C  
altered and mineralized diamond drillcore



Laminated quartz-carbonate vein



Modified after USGS 250K 20F geological map

# Structural Geology – Main Zone trend

## D1 Asir Terrane Accretion

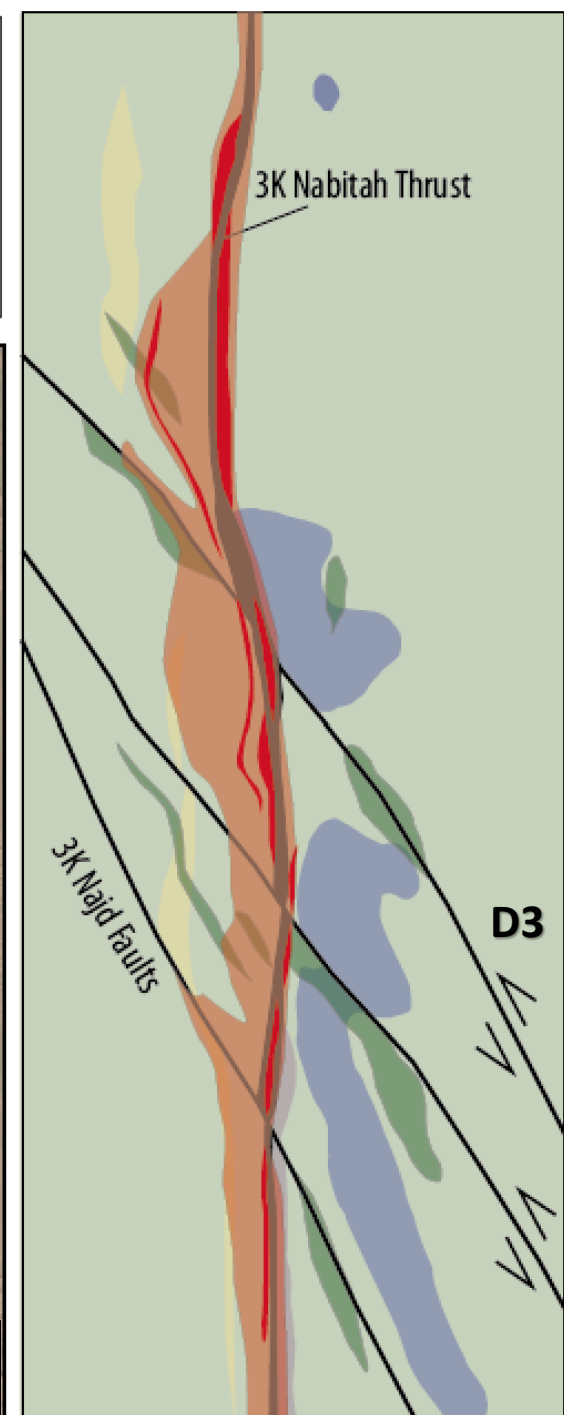
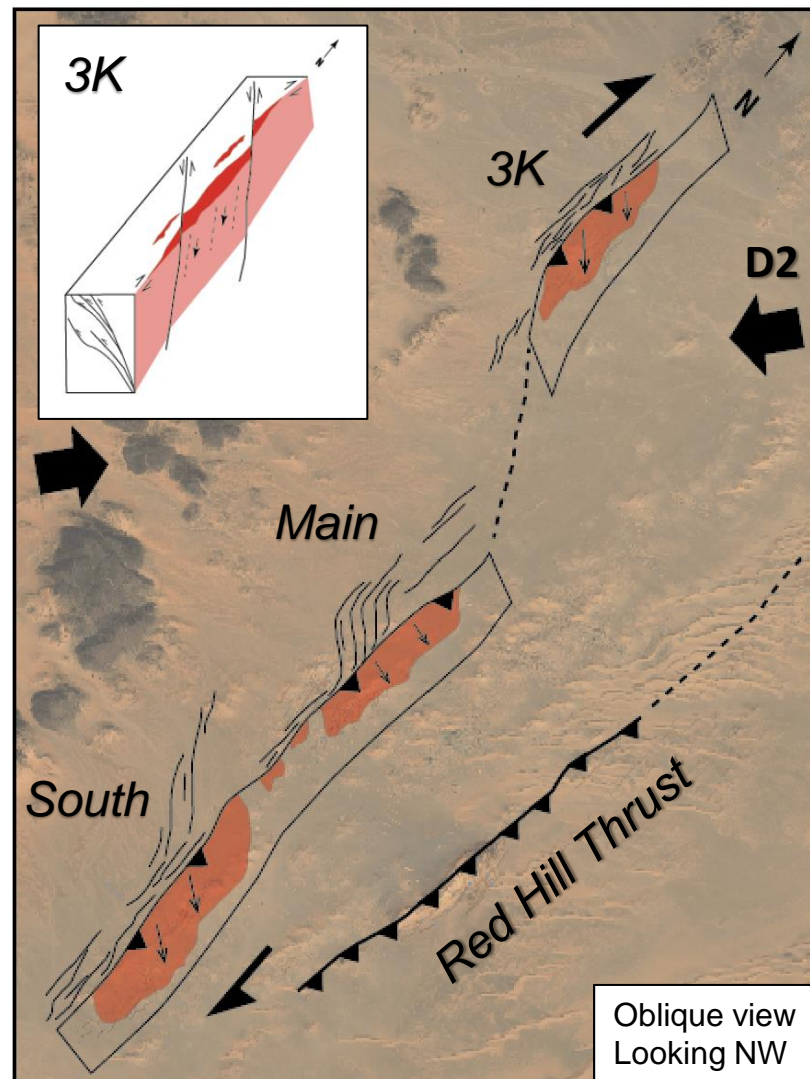
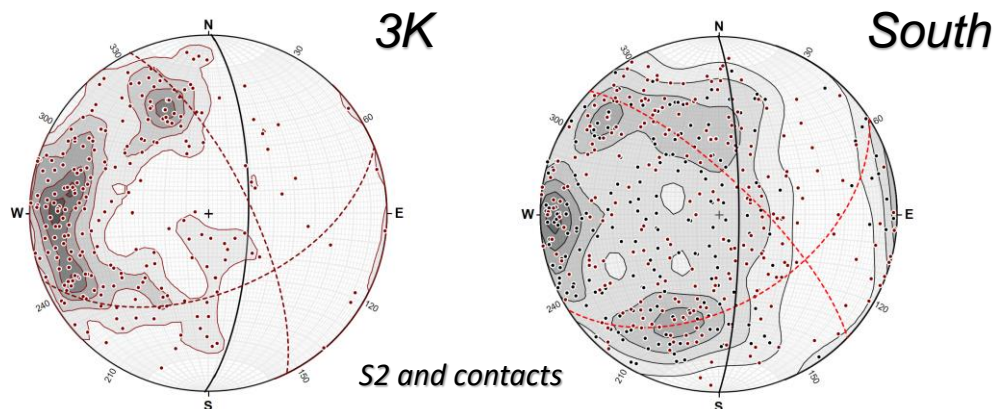
- Mean planes on stereonet define fold limbs; intersection defines F2 axial hinges.
- Foliation interpreted as folded S1.

## D2 Dextral transpression during Nabitah Orogeny

- Pervasive, anastomosing S2 foliation.
- North striking localized shear fabric.
- North striking imbricate thrust faults and F2 folds.
- Shear-hosted quartz-carbonate veins

## D3 Najd mafic dykes offset by Nabitah Thrust

- Close relationship/timing of Nabitah and Najd events.
- Late reactivation of Nabitah thrusts during Najd deformation





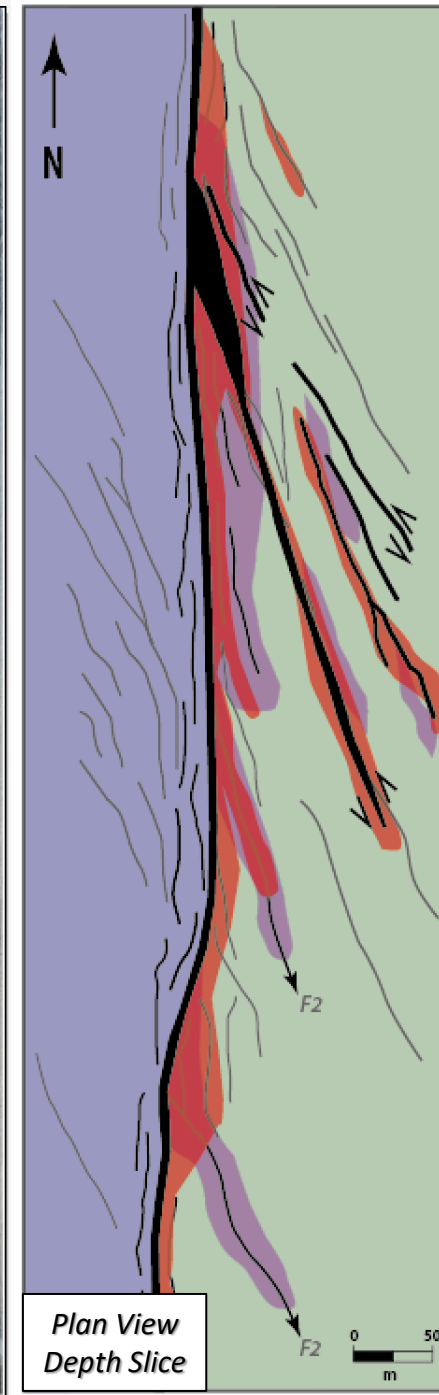
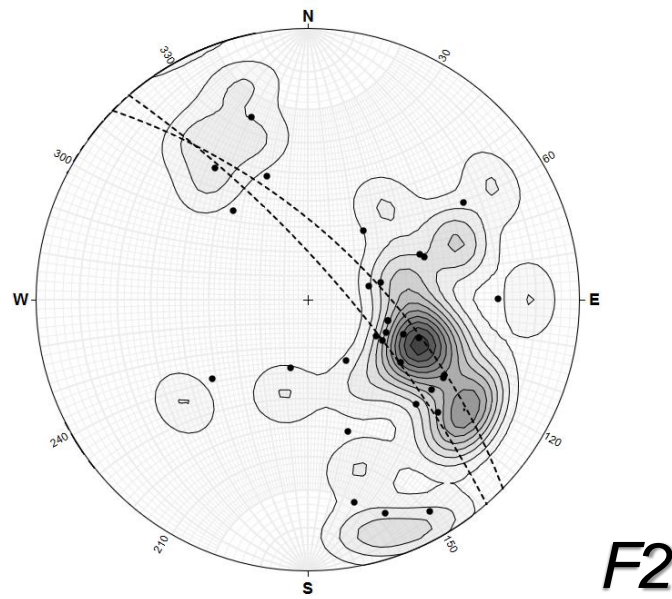
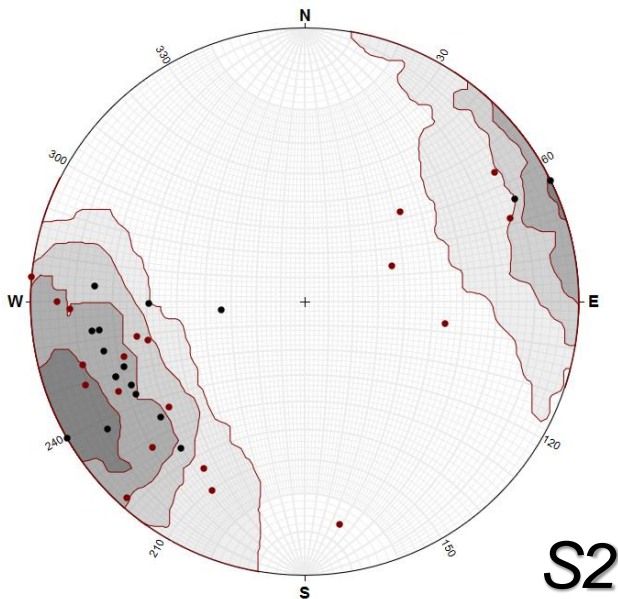
# Structural Geology – Red Hill trend

## **D2** Dextral transpression during Nabitah Orogeny

- NW trending F2 folds with associated axial planar S2 regional fabric
- North-South trending thrust fault – Shear fabric crosscuts S2.
- SE-plunging fold axes

## **D3** Najd reactivation of Red Hill Thrust

- Late sinistral reactivation of thrust and NW shears/planes
- Deflection of S2 foliation
- Rotation of F2 fold axes to NW-NE



Continuous > 80 My gold mineralizing event.

### Variable geometry of the greenstones belts by terrane

Primary architecture of belts pre-Nabitah (F1 folds)

### Nabitah dextral transpressional event

- Imbricate faults and thrusts
- Pervasive regional fabric
- Dyke emplacement

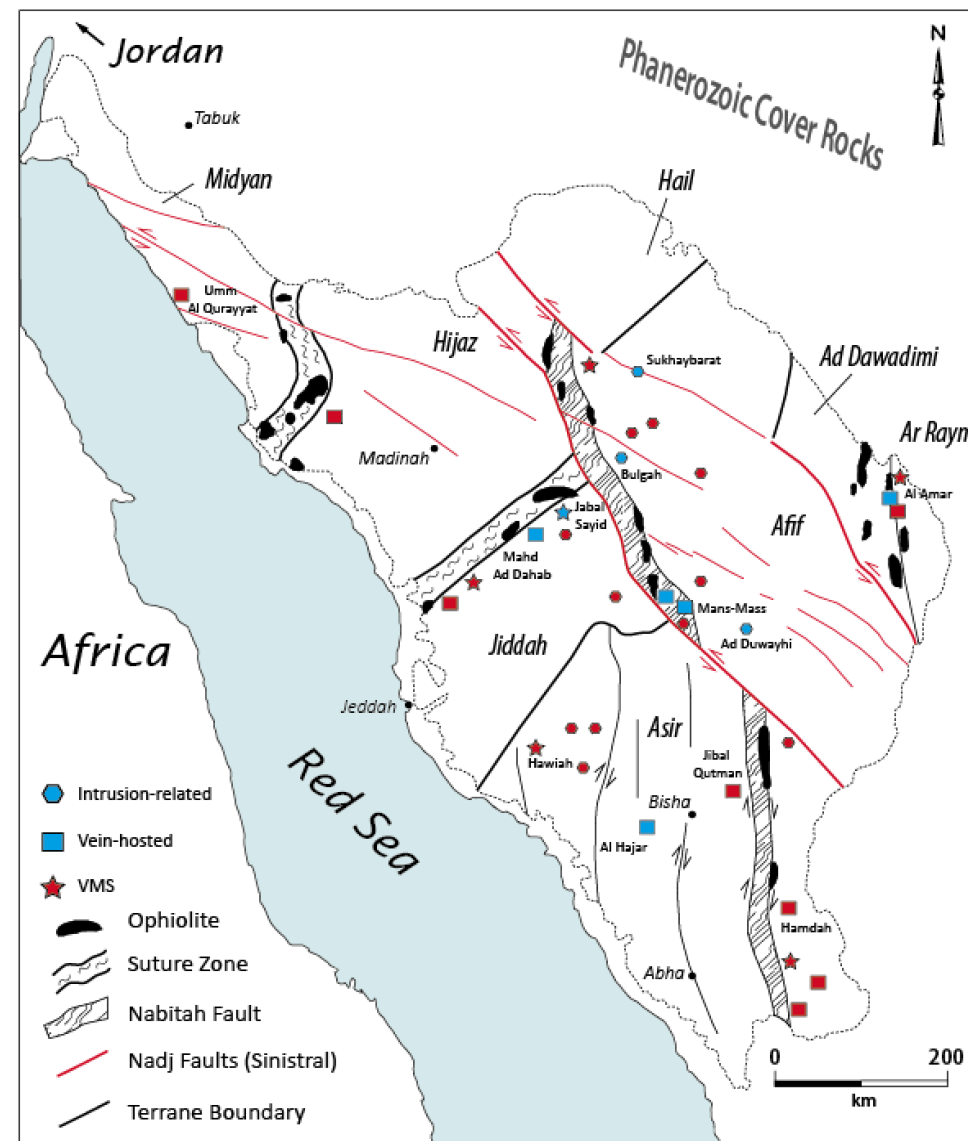
### Nadj sinistral event

Sinistral transtension

- Reactivation of Nabitah thrusts and deflection of S2 foliation
- Dyke emplacement

### Regional and local controls to mineralization

- Structural controls to mineralization vary significantly within a deposit.









# The Jibal Qutman Gold Project Kingdom of Saudi Arabia

Deposit-Scale Structural Models in an Underexplored  
Terrane to Drive Discoveries

