

# CURRICULUM VITAE

## DR ROB SEAGO

### SUMMARY

A PhD educated geologist with extensive post-doctoral experience in field mapping and geological interpretation in the UK and internationally. Career to date has included projects for major oil and gas companies evaluating frontier exploration territories. Mining experience includes on-site structural geology evaluation with respect to open pit and underground stability issues, departmental reviews, in-house training and forward planning. Other work includes offshore shallow seismic projects in the UK and Middle East. Experience of working in small consultancies and of managing teams of technical specialists on a range of projects. Self-starter and can deliver a high specification of work to tight deadlines as evidenced by extensive consultancy work.

### PERSONAL DETAILS

<b>Full name:</b>	ROBERT DAVID SEAGO	<b>Date of birth:</b>	28 December 1961
<b>Place of birth:</b>	Milford Haven, Wales, UK	<b>Nationality:</b>	British
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### EDUCATION

1981-1984	<b>University of Liverpool, UK.</b> B.Sc. Upper Second Class Honours in Geology.
1984-1988	<b>Plymouth Polytechnic, UK.</b> Ph.D. <i>The Structure, Sedimentology and Lithostratigraphy of the Devonian and Carboniferous Rocks of SW Devon</i>

### PROFESSIONAL EXPERIENCE

#### GEOLOGIST, EARTH SCIENCES AND RESOURCES INSTITUTE (March 1988-August 1989) University of Bristol

March 1988-June 1988	Structural and stratigraphic studies and the hydrocarbon potential of the Al-Mukha Concession, <b>Yemen Arab Republic</b> on behalf of <b>Texaco</b> , USA
July 1988-October 1988	Structural mapping and construction of serial, balanced cross sections within a designated seismic grid in the <b>Swiss Jura</b> on behalf of <b>British Petroleum</b> .
Nov 1988-July 1989	Structural and stratigraphic studies and hydrocarbon potential of the deformed Siwalik foreland basin sequence (Miocene-Recent) of <b>southern Nepal</b> on behalf of <b>Texaco</b> , USA

#### GEOLOGIST, EARTH RESOURCES INSTITUTE (October 1989 to November 1992) University of Swansea

October 1989-April 1990	Field studies and basin analysis, <b>Buton Island, SE Sulawesi, Indonesia</b> , on behalf of <b>Conoco Indonesia</b> .
October 1990-Feb 1991	Field studies and basin analysis in the <b>Misool Archipelago, Irian Jaya, Indonesia</b> on behalf of <b>Amoseas, Indonesia</b> .
July 1991-August 1992	Geological, seismic and side-scan sonar studies, <b>UK</b> , on behalf of <b>Welsh Water, Longdin and Browning and Wallace Evans</b> . Areas studied: <i>Fairbourne, Tywyn, Benllech, Pembroke, Loughor, Lavernock, Plas Menai, Beaumaris, Saundersfoot and Falmouth</i> .

#### FREELANCE GEOLOGICAL CONSULTANT (November 1992 to present)

November 1992	Structural and stratigraphic studies and the hydrocarbon potential in <b>S. Yemen</b> on behalf of <b>Lasmo Oil (Aden) Ltd.</b>
Dec 1992-May 1993	Structural and stratigraphic studies and the hydrocarbon potential of the <b>Kai Islands, Eastern Indonesia</b> on behalf of <b>Union Texas</b> .
Nov 1993-August 1994	Geological and geophysical interpretation of <b>UK</b> nearshore areas. In association with <b>Longdin &amp; Browning/Fugro McClelland/Montgomery Watson/Laing GTM</b> .
February 1995-July 1995	Structural and stratigraphic studies and the hydrocarbon potential of <b>Baluchistan, West Pakistan</b> , on behalf of <b>British Gas</b> .
August 1995-Nov 1995	Structural and stratigraphic studies and the hydrocarbon potential of <b>West Sulawesi, Indonesia</b> on behalf of <b>Amoseas/Chevron</b> .

November 1995 - June 1998	Geological investigation of sediment patterns in the vicinity of the old Severn Bridge and the <b>Second Severn Crossing</b> on behalf of <b>Longdin &amp; Browning Surveys</b>
April 1996-May 1996	Structural and stratigraphic studies and the hydrocarbon potential of <b>Western Rajasthan, India</b> on behalf of <b>Shell India</b> .
February 1997	Geological and geophysical interpretation of <b>Cone Pill, River Severn</b> regarding sea wall defences in association with <b>Longdin &amp; Browning</b> .
February 1997-Jan 1999	Structural and stratigraphic studies and the hydrocarbon potential of <b>Baluchistan, West Pakistan</b> , on behalf of <b>Lasmo Oil Pakistan</b> .
February 1999-July 1999	Structural and stratigraphic studies and the hydrocarbon potential of <b>Baluchistan, West Pakistan</b> , on behalf of <b>Murphy Petroleum</b> .
September 1999	Geological investigation of a shallow seismic survey off <b>Foreland Point, SW England</b> on behalf of <b>Longdin &amp; Browning Surveys</b> .
February-April 2000	Re-investigation of the Hydrocarbon Potential of <b>Buton Island, Indonesia</b> on behalf of <b>Talisman Energy, Jakarta</b> .
May 2000-Sept 2004	Geological investigation and shallow seismic surveying of the <b>Dead Sea, Jordan</b> , on behalf of <b>Longdin &amp; Browning Surveys and the Arab Potash Company of Jordan</b> .
May 2000-Sept 2004	Geological investigations and interpretation of shallow seismic surveys in the River Severn on behalf of <b>Longdin &amp; Browning Surveys</b> .
Sept. 2004 - <b>PRESENT</b>	<p>Structural evaluation of the <b>Kumtor Gold Mine, Kyrgyzstan</b> on behalf of <b>SRK (UK)</b> and <b>Centerra</b>. This project is continuing through 2014 as the mine expands Assessment and review of the general working and staffing of the Geology Department.</p> <ul style="list-style-type: none"> <li>• Review of geological mapping programme, specific structural analyses, data management and presentation. Departmental forward planning and assistance with structural modelling and slope stability issues within the open pit.</li> <li>• Construction and interpretation of structural sections and maps within the open pit.</li> <li>• Delivery of an in-house structural geology course including mapping techniques to the resident geologists of the Mining and Engineering Department.</li> <li>• Initiation of a monitoring programme for the Geology Department. Structural modelling for open pit expansion. Assist with planning the geological and drilling programming for present pit and adjacent exploration areas.</li> <li>• Tectonic and lithological core logging. Structural evaluation of geotechnical boreholes in relation to pit wall stability and mine planning. Correlation of boreholes with structural cross sections.</li> <li>• Structural modelling for the underground mining programme.</li> </ul>
October – December 2005	Structural evaluation of the <b>Taffs Well Limestone Quarry, South Wales</b> on behalf of <b>SRK and Cemex</b> . Interpretation of structural sections and maps within the mine area and immediate vicinity in order to aid the pit expansion programme.
October - November, 2006	Structural and stratigraphic studies in the Carpathian thrust belt of northern <b>Romania</b> on behalf of <b>Aurelian Oil and Gas</b> .
March 2007 - January 2008	Structural, stratigraphic, sedimentological and geochemical studies in the Carpathian thrust belt of <b>Slovakia</b> on behalf of <b>Aurelian Oil and Gas</b> .
May 2008 - June 2008	Structural studies of a kyanite deposit, Jebel Kirsh, <b>Saudi Arabia</b> on behalf of <b>Ma'aden</b> .
Oct 2008 – November 2008	Structural studies in the Carpathian thrust belt of northern <b>Romania</b> on behalf of <b>Aurelian Oil and Gas</b> .
February 2009 – June 2009	Structural and 2D seismic appraisal of the Budong Budong Block, West Sulawesi, <b>Indonesia</b> on behalf of <b>Tately NV</b> .
November 2009 – 2014	<p>Structural evaluation and 3D Modelling of the <b>Red Dog (PbZn) Mine, Alaska</b> on behalf of <b>Golder Associates and Teck</b></p> <ul style="list-style-type: none"> <li>• Geological mapping of the open pits and surrounding area to assist mine operations, future mine planning and new exploration targets.</li> <li>▪ Construction and interpretation of closely spaced serial dip and strike structural cross sections and maps within the open pit areas utilising drill-hole data and surface mapping.</li> <li>▪ 3D structural modelling. Construct subsurface 3D model of all faults, stratigraphic horizons and ore-body.</li> <li>• Structural evaluation of geotechnical boreholes and integration with 3D geological model to evaluate pit wall stability for favourable slope angles and for future mine planning.</li> </ul>
October 2010 – July 2013	Structural and 2D seismic appraisal of the Budong Budong Block, West Sulawesi, <b>Indonesia</b> on behalf of <b>Harvest Natural Resources Inc.</b>
March 2011	Structural appraisal of the La Rusal Area, <b>Russia</b> . Coal Bed Methane Project. <b>SRK (UK)</b>
March-April 2011	Structural appraisal of the La Tigra Area, <b>Colombia</b> . Asphaltite Project. <b>SRK (UK)</b>
September 2011 – July 2013	Regional structural synthesis, basin analysis and 2D/3D seismic appraisal of onshore/offshore Thailand on behalf of <b>Pearl/Mubadala Petroleum</b>
February 2012	Structural appraisal of a Banded Iron Formation, <b>Liberia</b> , West Africa. <b>SRK (UK)</b>
May – June 2012	Structural appraisal of Coal deposits, <b>Laos</b> . <b>SRK (UK)</b>
June – August 2012	Structural appraisal and Hydrocarbon Potential of the Basin and Range Province, <b>Nevada USA</b> . <b>Harvest Natural Resources Inc.</b>
March – May 2013	Structural geology of the Shambesai Gold Deposit, <b>Kyrgyzstan</b> . <b>Manas Resources</b> .

March 2013 - **PRESENT**

Structural geology of **Qatar. AMEC UK.**

March 2014 - **PRESENT**

Structural evaluation and 3D Modelling of the **Fording River Coal Mine, British Colombia, Canada** on behalf of **Teck Coal Ltd**

- Geological mapping of the open pits and surrounding area to assist mine operations, future mine planning and new exploration targets.
- Construction and interpretation of closely spaced serial dip and strike structural cross sections and maps within the open pit areas utilising drill-hole data and surface mapping.
- 3D structural modelling. Construct subsurface 3D model of all faults, stratigraphic horizons and coal deposits.
- Structural evaluation of geotechnical boreholes and integration with 3D geological model to evaluate pit wall stability for favourable slope angles and for future open cast mine planning.

May 2014 - **PRESENT**

Structural evaluation and 3D Modelling of the **Elk River Coal Mine, British Colombia, Canada** on behalf of **Teck Coal Ltd**

- Geological mapping of the open pits and surrounding area to assist mine operations, future mine planning and new exploration targets.
- Structural evaluation of geotechnical boreholes and integration with 3D geological model to evaluate pit wall stability for favourable slope angles and for future open cast mine planning.

## PUBLICATIONS

**SEAGO, R. D. & CHAPMAN, T. J.** 1988. The confrontation of structural styles and the evolution of a foreland basin in central SW England. *J. Geol. Soc. London*, v. **145**, no. 5, p 789-800.

**POWELL, C. M., WILLIAMS, G. D. & SEAGO, R. D.** 1988. Using pre-existing cleavage to define extensional fault geometries. An example from Glacier National Park, Montana. *Geology*, v. **16**, p 878-880.

**SCHELLING, D., CATER, J., SEAGO, R. & OJHA, T. P.** 1991. A balanced cross-section across the central Nepal Siwalik hills; Hitauda to Amlekhganj. *Jour. Fac. Sci., Hokkaido Univ., Ser. IV*, v. **23**, no. 1, pp.1-9.

**RAFFERTY, P., SEAGO, R. & WHITELEY, M.** 2000. An initial assessment of the hydrocarbon potential of the Kharan Basin, Western Balochistan, Pakistan. Proceedings of the SPE-PAPG Annual Technical Conference, Islamabad, Pakistan, 131-150.

**OLDCORN, R. C. & SEAGO, R. D.** 2007. Understanding the Bigger Picture: Interpretation of Geological Structure in Open Pit Rock Slope Stability. ACG Slope Stability 2007.

**OLDCORN, R. C. & SEAGO, R. D.** 2008. *Taffs Well*. Extractive Industry Conference Papers, UK. 2008

**SEAGO, R.D. & RAHARJO, S.** 2012. *Tectono-Stratigraphy and Geochemistry of the Lariang-Karama Basin: Implications for Petroleum Systems in Onshore West Sulawesi*. **Indonesian Petroleum Association, 2012**

## TRAINING

March 2010 GEMCOM – Gems software training course, Gemcom, Coalville, Leicester, UK

March 2010 Sequence Stratigraphy training course – GWL, North Wales, UK

March 2012 SMT – Kingdom Seismic Interpretation training course – SMT, Croydon UK

October 2013 Leapfrog Geo Training Course, Natural History Museum, London UK – Leapfrog 3D