

SHORT COMPANY PROFILE



REGIONAL GEOPHYSICAL SURVEY LTD.

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BRIEF COMPANY PROFILE

Regional Geophysical Survey Ltd is a locally registered consultancy firm whose primary objectives is to provide quality consultancy and research services in geological, geophysical and geotechnical investigations including natural resources utilization, restoration, conservation and management. The company was formed upon the realization that the best approach to understanding earth subsurface is through integrated geological (including GIS and Remote Sensing), geophysical and geotechnical investigations. However, in the resultant development from the above investigations, environmental degradation twined with economic decline takes a sad toll in Kenya. Consequently, Environmental Impact Assessment (E.I.A) and Environmental Audit were integrated to take care of natural resources utilization, restoration, conservation and management through knowledge based services in research, training and consultancy services encompassing a multi-disciplinary approach to issues pertaining to natural resources.

The principal participants in the firm have been involved in training, research and consultancy services that have been undertaken to the highest possible levels. Cores areas of specialisation included: geological survey, hydrogeological, geophysical surveys, geotechnical and environmental impact assessments and audit, natural resources management, soil mapping surveys, afforestation, forestry research, aquaculture development, planning and development, erosion risk surveys and watershed management, socio-economic appraisals and evaluation, project proposal development, project implementation and management, project evaluation and monitoring, ecotourism mapping and development.

Consultants' capacity to undertake the Hydrogeological, Geophysical, Geotechnical and Environmental - Social Impact Assessment

Regional Geophysical Survey Ltd. being a consortium of highly professional multi-disciplinary team has a Principal Consultant (Dr. Zacharia Kuria) who oversee the running of the company and also heads geophysics, geotechnical and hydrogeology unit. Other unit head includes Lilian Wanjama (MSc.) who heads geological surveys and EIA with assistants, who hold Bachelor's degree.

For the purpose of the proposed study, a multi-disciplinary professional team will undertake the work. Three key consultants are proposed to participate in this study through the guidance of the Principal Consultant. This team of three will be supported by field assistants. Brief details of the staff are outlined below:

Dr Zacharia Kuria

Dr. Kuria is currently working as Principal Consultant for Regional Geophysical Survey. He holds PhD in applied Geophysics from University of Twente, Faculty of ITC, Netherlands. He also holds a Master of Science degree in hydrogeology and Geophysics from University of Nairobi (where he undertook a research on hydrogeology of Lake Nakuru Drainage Basin using GIS and resistivity survey). He also holds a Bachelor of Science Degree (First Class Honours) from the University of Nairobi. In addition to geophysical software, he has wide experience with various types of computer software, groundwater modeling packages and geographical information systems (GIS)

ILWIS, ENVI, ArcGIS, and ERDAS. He is a registered Consultant with Ministry of Water, a registered Geologist with Geologists Registration Board and Professional Member of Geological Society of Kenya. Over the years he worked either as a consultant or associate for numerous firms on hydrogeology and geophysical surveys including roads where he has gained invaluable experience.

Mrs Lilian Wanjama

Mrs. Wanjama who is currently working as a Geological and E.I.A expert for Regional Geophysical Survey Ltd. She holds a Masters Degree in Geology from James Cook University in Australia, a Bachelor's Degree in Geology from the University of Nairobi (First Class Honours) and a Postgraduate Certificate in Environmental Impact Assessment and Audit from the Centek, Sweden. She is a registered environmental impact assessment, environmental audit, monitoring and action planning; risk and hazard management; project design, planning management implementation, evaluation and monitoring. Over the years, she has worked for several establishments where he has gained valuable expertise in geological survey. Mrs. Wanjama is proficient in Arc GIS, Fabric 7.

Mr. Solomon Ombasa

Mr. Ombasa holds a Bachelor's degree in Geology from University of Nairobi (Second Class Upper Division). Currently he is working as Director Operations. During his working experience he has displayed a very strong Management and Leadership skills through diligent supervision of Geotechnical drilling site, recording of in situ drilling tests, organising and coordinating geological and geophysical fieldworks including Management of fieldwork funds. This attributes have led to successful and timely completion of our projects.

Mr. George Mwaura

Mr. Mwaura holds a Bachelor's degree in Geology from University of Nairobi (First Class Honours). Currently and Masters in Engineering Geology at the University of Nairobi. He is the Technical Director in Geophysical and Geotechnical investigations. He has worked in various geotechnical and geophysical investigations where he has gained wide experience and indepth understanding in company's scope of services.

Mr. Henry Njuguna

Henry Njuguna is an experienced hydrologist with over 26 years of professional working experience. He has been working at various levels and has invaluable experience gained both at the field level where he led in exploration, surveys, design and project implementation for water supply systems and development. Professionally, Henry is a qualified Geologist and Hydrologist with vast experience in applied hydrology including Flood risk mapping; hydrological assessment for dams; setting specification for runoff harvesting; and evaluation of the hydrodynamics Causeway. He is registered with Ministry of Water and Irrigation **License No. WD No 229**.

GEOPHYSICAL AND GEOTECHNICAL INVESTIGATIONS (ONLY)

1) INVESTIGATIONS RELATED TO ROAD PROJECTS & SGR

YEAR	ASSIGNMENT NAME	LOCATION	PROPONENT	No. of STAFF PROVIDED BY FIRM	DESCRIPTION OF ACTUAL SERVICES PROVIDED BY STAFF
November 2016	Geophysical and Geotechnical investigations	Ugunja-Sega-Ukwala, Kendu Bay, Oyugis And Ndhiwa	CAS Consultants Ltd.	2	Seismic Refraction, Trial Pits and DCP Test for foundation
November 2014	Geophysical Investigation	Mombasa Southern Bypass, Mombasa	Mass labs Ltd	3	Phase 2: Establishing with accuracy the soil profile (thickness and condition) and the nature of the underlying geology (rocks) using Vertical Electrical Sounding (VES)
June 2014-Ongoing	Geological and Geophysical Investigation	Counties of Meru Embu County Tharaka/Nithi County Kitui County Makueni County Machakos County	C.M Kamau and Associates	3	Hardstone prospecting for road construction materials in 6 Counties using Vertical Electrical Sounding (VES)
July 2015	Geophysical Investigations	Suswa Area	China Road and Bridge Corporation	2	Assessment of Rock Resources using Electrical Resistivity Tomography for Ballast for SGR
June 2014	Geological and Geophysical Investigation	Mombasa Southern Bypass, Mombasa	Mass labs Ltd	3	Phase 1: Mapping sinkholes along the Mombasa Southern bypass near Chagamwe using Electrical Resistivity Tomography
2010	Geophysical survey	along Mulot – Muhuru Bay roads	Mangat I.B. Patel and Partners	1 Sole consultant	resistivity tomography at 6 bridge sites

2) ONGOING OR UNDERTAKEN GEOPHYSICAL AND GEOTECHNICAL INVESTIGATIONS IN PROJECT AREA

May 2018	Hydrological study	Suswa HVDC Substation	Siemens Aktiengesellschaft Germany	2	Hydrologic study and flood hazard mapping for Mt. Longonot and Mt. Suswa catchment
May 2018	Geophysical Investigations	Suswa HVDC Substation	Siemens Aktiengesellschaft Germany	2	Mapping Clay Pockets using Electrical Resistivity Tomography
May 2018	Geotechnical investigations	Suswa HVDC Substation	Siemens Aktiengesellschaft Germany	2	Geotechnical investigations for extension of the existing Suswa Substation
January 2018	Geotechnical investigations	Suswa HVDC Substation	Siemens Aktiengesellschaft Germany	3	Soil blending for dynamic compaction
June 2017	Geotechnical Investigation	Suswa HVDC Sustation	Siemens Aktiengesellschaft Germany	3	Geotechnical investigations for Suswa Substation
June 2017	Geophysical Investigations	Suswa electrode area	Siemens Aktiengesellschaft Germany	2	Borehole Electrical Resistivity Logging
April 2017	Geotechnical Investigations	Suswa electrode area	Isolux Corsan	2	Thermal Resistivity Test
February 2017	Geophysical investigations	Suswa HVDC Sustation	Isolux Corsan Ltd	2	Soil characterization using Electrical Resistivity Tomography and Earth Resistivity Testing (Wenner Method)
February 2017	Geophysical Investigations	Suswa electrode area	Isolux Corsan	3	Vertical Electrical Sounding (VES), Electrical Resistivity Tomography (ERT),

					Transient Electromagnetic and Magnetotelluric
February 2017	Geophysical Investigations	Suswa electrode area	Isolux Corsan	2	Soil characterization using Electrical Resistivity Tomography and Earth Resistivity Testing Using Four Terminal Method (- Wenner Array)
February 2017	Geotechnical Investigations	Suswa electrode area	Isolux Corsan	2	SPT TEST for foundation
June 2016	Geophysical Investigations	Suswa Power Substation, Suswa Area	Lilac Engineering Limited	2	Refraction Microtremors for site response parameters
February 2013	Geophysical investigations	Proposed Suswa Power Station, Mt. Suswa Area, Narok County	Opal Infrastructural Supplies Ltd	3	Report on Soil characterization using Electrical Resistivity Tomography and Earth Resistivity Testing Using Four Terminal Method (- Wenner Array).

3) GEOPHYSICAL AND GEOTECHNICAL ONGOING INVESTIGATIONS OR UNDERTAKEN FOR DAMS AND OTHER PROJECTS

May 2018	Geological and Geophysical investigations	Kaguma Village, Meru County	Hutton Construction Ltd	2	Rock Resource Assessment using Seismic Refraction for Cut-Stone Quarry
April 2018	Geological and Geophysical investigations	Along Athi River at Kayata Area, Machakos County	CAS Consultants Ltd	2	Geological Survey and Electrical Resistivity Tomography (ERT for the Proposed

					Weir, Retaining Wall and Intake Chamber
March 2018	Geological and Geophysical investigations	Royal Nairobi Golf Course, Nairobi County	Mr. Jackson Kanyarati	2	Rock Resource Assessment using Electrical Resistivity Tomography (ERT)
March 2018	Geotechnical investigations	Mombasa Cement factory, Kilifi County	Mombasa Cement	2	Geotechnical investigations for foundation
March 2018	Geological and Geophysical investigations	Engineer Area (Muthoni's Farm) in Kinangop, Nyandarua County	Mr. Lenana	2	Using Electrical Resistivity Tomography (ERT) at Engineer Area (Muthoni's Farm) In Kinangop, Nyandarua County
January 2018	Geological and Geophysical investigations	Near Londiani Town, Nakuru County	LILAC ENGINEERING LIMITED	2	Seismic Refraction Survey along New Tunnel Inlet
January 2018	Geological and Geophysical investigations	Wind Farm, near Isiolo Town, Kenya	Rock Link Geological Consultants Ltd	3	Geophysical site investigation using Multichannel Analysis of Surface waves (MASW) and Electrical Resistivity Tomography (ERT)
November 2017	Geological Investigation and Geophysical investigations	Crocodile Jaw Dam Site Investigation, Oldoinyo Ngi'ro Area	CAS Consultants Ltd.	2	Geological Investigation and Electrical Resistivity Tomography (ERT)
October 2017	Geological and Geophysical investigations	Engineer Area (Muthoni's Farm) in Kinangop, Nyandarua County	Mr. Lenana	2	Rock Resource Assess using Electrical Resistivity Tomography (ERT)
October 2017	Geophysical Site Survey	Savannah Cement Factory, Athi River, Machakos County	Foundation Piling Ltd		Downhole Shear Wave Measurements

August 2017	Seismic Risk Analysis	Mwache Dam Site In Mazaras Area of Mombasa County	Rock Link Geological Consultants Ltd	2	Seismic Hazard Assessment using Probabilistic Seismic Hazard Analysis (PSHA) procedure
July 2017	Geological and Geophysical investigations	Kaguma Villge, Meru County	Hutton Construction Ltd	2	Rock Resource Assessment using Seismic Refraction for Cut-Stone Quarry
July 2017	Geological and Geophysical investigations	OL KALOU, Nyandarua	Mr. Lenana	2	Rock Resource Assessment using Seismic Refraction for Cut-Stone Quarry
June 2017	Geology, Seismological and Hazard Studies	Karimenu Dam li in Gatundu Area, Kimabu County	Athi Water Services Board	2	Geology and Seismic Hazard Assessment using Probabilistic Seismic Hazard Analysis (PSHA) procedure
June 2017	Geophysical investigations	Kenya Pipeline Company, Kisumu	Mr Paul Kimani	2	Earth Electrical Resistivity Survey
June 2017	Geological and Geophysical investigations	Sacred Lake, Mt Kenya	Hutton Construction Ltd	2	Electrical Resistivity Tomography to estimate dredging depths
May 2017	Geophysical Investigations	Tatu City, Kiambu County	Earthview Geoconsultants	2	Seismic Refraction for foundation
March 2017	Geological and Geophysical investigations	Juja Area, Kiambu County	Mr Lenana	2	Rock Resource Assess using Electrical Resistivity Tomography (ERT)

February 2017	Geological and Geophysical investigations	Komo Area, Kiambu County	Samba Limited	2	Rock Resource Assesment Using Multichannel Analysis of Surface Waves (MASW)
January 2017	Geophysical And Geotechnical Investigations	Ruaka Site, Kiambu County	Heri Homes Properties Ltd.		Seismic Refraction, Trial Pits and DCP Test for foundation
October 2016	Geotechnical Investigations	Vipingo area, Kilifi County	Mombasa Cement Ltd	2	Geotechnical investigations for Expansion of the Mombasa Factory
September 2016	Geophysical Investigations	Tala—Nguni area, Machakos	Aristocrats Concrete Ltd	2	Rock Resource Assessment using VES for ballast
September 2016	Geophysical Investigations	Kikopey Area, Gilgil, Nakuru County	Mr. Thiong'o Kimani	2	Rock Resource Assesment using Seismic Refraction
August 2016	Geophysical Investigations	Kitengela Town	Bamburi Cement Factory, Kenya	2	Multichannel Analysis of Surface waves (MASW)
August 2016	Geophysical Investigations	Londiani-Molo Towns	Lilac Engineering Limited	2	Seismic Refraction along a tunnel
August 2016	Geophysical Investigations	Thika Substation at Kenyatta University	AEE Power Ltd	2	Earth Electrical Resistivity Survey for earthing substation
July 2016	Geophysical Investigations	Itare Dam	Lilac Engineering Limited	2	Seismic Refraction for dam foundation
April 2016	Geological and Geophysical Investigations	Kamulu Area, Machakos	Herbert Kariithi Githinji & Rufus Gachanja Kanyari	2	Rock Resource Assessment using Seismic Refraction

April 2016	Geophysical Investigations	Mikinduri substation, in Mikinduri, Meru	Mass labs Ltd.	2	Earth Electrical Resistivity Survey for earthing design
April 2016	Geophysical Investigations	Kiamutugu substation, in Kiamutugu, Kirinyaga	Mass labs Ltd.	2	Earth Electrical Resistivity Survey for earthing design
January 2016	Geological survey	Mwache Dam	Mangat I.B.Patel & Partners	2	Geological mapping of the Mwache Dams and check dams
November 2015	Geophysical investigations and structural geological mapping	High Rise Building, Upper Hill, Nairobi County, Kenya	Terraconsult Kenya Ltd	3	Multichannel Analysis of Surface waves (MASW) and Downhole Seismic For foundation testing and joint surface mapping
October 2015	Geophysical investigations	Thika Substation situated at Kenyatta University	Opal infrastructure	2	Earth Electrical Resistivity Survey for earthing design
September 2015	Geological Mapping and Geophysical	Kholombidzo Dam, Malawi, in Districts of Neno and Blantyre	Connex Cosultant Ltd.	2	Geological investigations, soil investigations by trial pits and laboratory analysis and seismic refraction to map fractures and faults
June 2015	Geophysical investigations	At Kahawa west	AEE power	2	Earth Electrical Resistivity Survey for earthing design
June 2015	Geophysical Investigations	Ngeria area, Eldoret	Mass labs Ltd.	2	Geophysical Survey (Vertical Electrical Sounding) at the Proposed Large Scale Photovoltaic (PV)

June 2015	Geological and Geophysical Investigations	Katani, Mavoko Sub-county, Machakos County	H-Young & CO. (EA) Ltd	2	Assessment of Rock Resources using Electrical Resistivity Tomography
June 2015	Geological Mapping and Geophysical Investigations	Kipeto Wind Farm, Kajiado	Iberdrola Eng Construction	2	Geotechnical Risk Study of buried caves using Electrical Resistivity Tomography
May 2015	Geological Mapping and Geophysical	Mutindwa Dam Site, Chogoria, Meru South Area	CAS Consultants Ltd.	2	Geological and Geophysical investigations into lithologies and fractures using Electrical Resistivity Tomography
March 2015	Geophysical Investigations	Loiyangalani 220 Kv substation, Marsabit District in northern Kenya	Opal infrastructure	2	Earth Electrical Resistivity Survey for earthing design
March 2015	Geophysical investigations	At Juja road 66Kv substation, Dandora	Mass labs Ltd	2	Earth Electrical Resistivity Survey for earthing design
December 2014	Geophysical investigations	Kitui Substation	Mass labs Ltd		Earth Electrical Resistivity Survey for earthing
November 2014	Geological Mapping and Geophysical Investigations	Karura Hydropower Plant,	Kenya Electricity Generating Company Ltd.	3	Phase II; Tunnel Option-Additional Works on Feasibility Study for Karura Hydropower Plant- Geological, Electrical Resistivity Tomography and Multichannel analysis of surface waves
October 2014	Geophysical investigations	Unilever factory site at Tatu City, Ruiru, Northern Unit.	Mass labs Ltd	2	Establishing with accuracy the soil profile (thickness and condition) and the nature of the underlying geology (rocks) using

					Vertical Electrical Sounding (VES)
September 2014	Geophysical investigations	Lessos Power substation	Mass labs Ltd	2	Earth Electrical Resistivity Survey for earthing
June 2014	Geological and Geophysical Investigations	along the proposed Thika-Kabete Water Pipeline, Kenya	Mangat I.B.Patel and Partners	2	Geotechnical characteristics deduced from geological and seismic surveys
June 2014	Geophysical investigations	Maungu 220 Kv substation	AEE Power Ltd	2	Earth Electrical Resistivity Survey for earthing
June 2014	Geophysical investigations	Kitengela, Kenya	Mass labs Ltd	2	Earth Electrical Resistivity Survey for earthing
May 2014	Geophysical investigations	Bomet 220 Kv substation, Kenya	Mass labs Ltd.	2	Earth Electrical Resistivity Survey for earthing design
April 2014	Geological and Geophysical Investigations	Maaradam Site Investigation, Chogoria, Meru South Area	CAS Consultants Ltd.	2	Geological and Geophysical investigations into lithologies and fractures using Electrical Resistivity Tomography
February 2014	Geophysical investigations	Aluminium-Can Manufacturing Plant, Sultan Hamud, Makueni County, Kenya	GIBBS Engineering and Construction	2	Multichannel Analysis of Surface waves (MASW) 1D and 2D models for site response parameters
January 2014	Geophysical investigations	Kinangop Wind Farm, South Kinangop, Central Province, Kenya	IBERDROLA Engineering and Construction	2	Multichannel Analysis of Surface waves (MASW) 1D and 2D models for site response parameters

October 2013	Geological and Geophysical investigations	Mariakani Power Station, Mariakani Area, Kilifi County	Opal Infrastructural Supplies Ltd	2	Soil characterization using Electrical Resistivity Tomography and Earth Resistivity Testing Using Four Terminal Method (- Wenner Array) for earthing.
September 2013	Geophysical investigations	Northern Collector Tunnel Phase 1: Geophysical Survey	Turn-O-Metal Engineering Ltd.	3	Delineate faults and establishing with accuracy the soil profile (and the underlying geology using ERT survey along 12km tunnel.
June 2013	Geophysical Investigations	Gakira Power Project, Othaya And Mukurweini Area Of Nyeri County	Eng Orodi	2	Seismic Refraction For Foundation Test
June 2013	Geophysical investigations	Kipevu Soil Resistivity Survey, Mombasa	Opal Infrastructural Supplies Ltd		Measurement of earth resistivity Four terminal method (WENNER METHOD)
June 2013	Geological And Geophysical Investigation	Crocodile Jaw Dam Site Investigation, Oldoinyo Ngi'ro Area	CAS Consultants Ltd.	3	Geological and Geophysical investigations into lithologies and fractures using Electrical Resistivity Tomography
May 2013	Geophysical investigations	Ahero 33/11kv substation, Kabarak 33/11kv substation Maseno 33/11kv substation	Opal Infrastructure	2	Earth Electrical Resistivity Survey for earthing

		Chepsion 33/11kv substation Kipsaraman 33/11kv substation Kibos 33/11kv substation and Elgon View 33/11kv substation			
May 2013	Geophysical investigations	San Marco Space Centre, Malindi, Kenya	Drilling & Prospecting International Ltd.	2	Multichannel Analysis of Surface waves (MASW) 1D and 2D models for site response parameters
January 2013	Geological and Geophysical investigations	Mkurumudzi Dam Site, Vingirika Area, Msambweni District, Kwale County	Grout & Shotcrete Consultants Ltd.	3	CHARACTERISTICS OF THE EARTH SUBSURFACE MATERIAL using Integration of Seismic refraction and 2-D Resistivity tomography
November 2012	Geological and Geophysical investigations	Thika area	Pilot Crusher Quarry	2	Assessment of Rock Resources using Electrical Resistivity Tomography
September 2012	Geological and Geophysical investigations	Adams Arcade Area, Ngong Road	Mr. Ndiho and Eng Minju	2	Seismic refraction rippability survey for car park
July 2012	Geophysical Investigations	Moi Air Base power substation, Kario Bangi South, Nairobi area	Opal Ltd./Kenya Power	2 Sole consultant	vertical Electrical Sounding, Electrical Resistivity Tomography and geological logging for foundation

2012	Geophysical Investigations	Makongeni power substation project, Juja area	Opal Ltd./Kenya Power	2 Sole consultant	vertical Electrical Sounding, Electrical Resistivity Tomography for foundation
2012	Geological, geotechnical and geophysical investigations	Maira Dam Project, Busia County	Nile Basin Initiative.	2 Sole consultant	Geological mapping, sampling for geotechnical analysis and surface seismic refraction for Dam
2012	Geophysical investigations	Mkurumudzi Dam Project, Kwale County	Grout and Shotcrete Ltd.	2 Sole consultant	Surface seismic refraction for Dam
2012	Geophysical investigations	Koromojo Dam, Kwale County	Grout and Shotcrete Ltd	2 Sole consultant	Electrical Resistivity Tomography and Surface seismic refraction o assess dam failure
2011	Geophysical investigations	Kwale international Sugar Company (Kiscol), Kwale County	Grout and Shotcrete Ltd.	2 Sole consultant	surface seismic refraction sugar factory foundation
2011	Geophysical investigations	High GrandFall Mega Project, along Tana River in Tharaka and Mwingi Districts	Grout and Shotcrete Ltd/AEGIS	2 Sole consultant	Surface seismic refraction for High Grand Fall Mega Project for Dam
2011	Soil resistivity survey	Rabai, Coastal area and Embakasi, Nairobi	Opal Ltd/Kenya Power	2 Sole consultant	Vertical electrical sounding for power substations
2010	Geological mapping, geophysical and geotechnical investigations	Karura hydropower plant, along Tana River, Mbeere and Kitui Districts	KENGEN, Foundation Piling, Earthview Geoconsult	2	Geological mapping, sampling for geotechnical analysis and surface seismic refraction for Dam
2010	Geophysical, geotechnical and topographical survey.	Kenya School of Monetary studies, Ruaraka Campus, Nairobi	Kenya School of Monetary Studies, Department of Geology	1 Sole consultant	sampling for geotechnical analysis and topographical survey.

