

ACES Abu Dhabi Extends the Scope of Environmental Testing

**By: Mrs. Rashmi Nair and Eng. Abed Mahmood
ACES Abu Dhabi Senior Chemists**

ACES-Abu Dhabi has introduced new technical services extending the scope of Environmental testing with respect to water analysis. These include:

- **Bacteriological Analysis**

ACES-Abu Dhabi is now fully equipped to carry out Bacteriological analysis of water, specifically Total coliforms, Fecal coliforms, Escherichia coli & Heterotrophic plate count in accordance to APHA 9223B & APHA 9215E using IDEXX microbiology tests kits. The tests are accurate and results for Total coliforms, Fecal coliforms & Escherichia coli are available in 18-24 hours unlike the traditional methods where 48-72hrs are required.

- **Total Organic Carbon (TOC) Analysis**

ACES - Abu Dhabi currently introduced the latest model of Shimadzu TOC Analyzer for measurement of Total Organic Carbon and Total Nitrogen in environmental samples. The system can measure a variety of parameters by application of non dispersive infrared detector (NDIR). The system has an additional application of total nitrogen (TN) measurement by addition of chemiluminescence detector. The 680° C combustion catalytic oxidation method, that was developed by Shimadzu and subsequently spread around the world, can efficiently analyze all organic compounds. With its wide measurement range the instrument is suitable for analyzing ultra-pure to highly contaminated samples of wastewater, brine water, seawater, drinking water and pharmaceutical water. The system is compliant with APHA 5310B, SW-846 method 9060 and USEPA 415.1 methods.



Quality Control of Projects

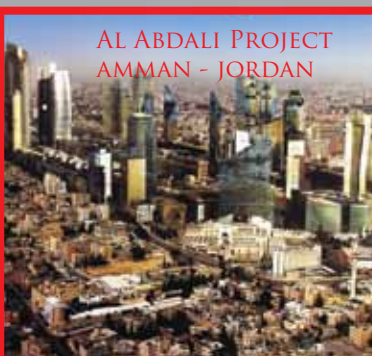
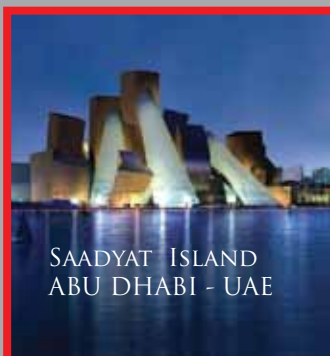
**By: Samir Said
Corporate Marketing & Business Development Manager**

Quality Control of Projects is critically important to a successful construction project. The quality control of projects is one of ACES premier services. ACES is well equipped with an array of laboratory equipment to set up site laboratories to provide quality control services, on-site materials testing, preparation of quality control reports, calibration of laboratory testing equipment and of asphalt and concrete batch plants.

ACES has carried out quality control services for many mega projects in the region since it was established in 1983. Some of these projects include: The Yas Island & Saadyat Island(Abu Dhabi-UAE), Princess Nora Bint Abdulrahman University(Riyadh-Saudi Arabia), Pearl Qatar & Lusail Entertainment District(Doha-Qatar), Jordan Gate & Abdali Project(Amman-Jordan) and Dubai Metro (Dubai-UAE).

All ACES' projects, regardless of the size, are approached with the expertise, technology and equipment required to meet the client's needs and are conducted in accordance with the highest international standards including the British Standards (BS), American Standards (ASTM), German Standards (DIN), European standards (EN), ISO 9001:2008 and ISO/IEC 17025-2005.

When it Comes to Quality Constuction **ACES** Completes the Picture.



Presentation on Subsurface Exploration at the 6th Jordanian International Mining Conference



Dr Mohammad Abu-Hassan
Head of Geotechnical department
ACES-Amman

A presentation on Sub-Surface Exploration at the 6th Jordanian International mining conference was given by Dr Mohammad Abu-Hassan (Head of Geotechnical department at ACES-Amman). The Conference that took place in the Land Mark Hotel - Amman, and lasted for three days (November 1st to November 3rd 2011) was aimed to utilize the natural resources (Present Status and Future Prospects). This successful event, organized by the Jordan Engineers Association (Mining, Geological and Petroleum Engineering Branch), was under the patronage of his Royal Highness Prince Al Hasan Bin Talal.

In his presentation, Dr Abu Hassan presented the importance of subsurface exploration for different projects that would aid in determining the foundation type, bearing capacity, probable settlements, potential problems, lateral earth pressure, cause of cracks, water location (seepage and effective pressure), and mining. During his presentation, an emphasis was made on the drilling techniques and the used equipment, particularly the rotary coring drilling (the most common method in ACES Jordan). Afterwards sampling methods, disturbed such as split barrel and undisturbed such as thin-walled shelby tube were presented. Different Field tests used in determining the in-situ mechanical properties were presented; such as standard penetration (SPT), vane shear, pressure meter, plate loading and permeability. A brief on geophysical methods used to measure mechanical waves and resistivity of subsurface materials were also presented.

At the end of his presentation, Dr Abu Hassan presented the advantages and disadvantages of these field tests along with the necessity of the soil properties gathered from subsurface exploration, and how could it be used for further applications such as shoring design and slope stability.

ACES Jeddah Announces Steel Testing Capability

ACES Jeddah is pleased to announce the arrival of new computerized universal testing machine to its equipment gallery. The new computerized steel testing machine is used for a number of material testings including Tension, Elongation, Shear, Bending and Rebending, etc.. The capacity of the machine is 1000 kN.

ACES Jeddah assures its clients of quality material tests at all times, robust and with great accuracy. The new machine means that ACES Jeddah can perform all the steel tests at its laboratory in Jeddah.



General Health & Safety Training Courses at ACES Jordan



The health and safety officer, Ms. Rawan Al-Naber, held general health and safety training courses for all employees in ACES - Jordan offices, Amman, Aqaba and AlRajeb maintenance center. The topics include the importance of general safety and personal protective equipment, fire fighting methods, methods of prevention of electrical hazards and principles of first aid.

Ms. Rawan Al-Naber commented that Arab Center for Engineering Studies (ACES) aims through such training courses to meet the requirements of ISO 14001 and ISO 18001, in addition to the ultimate aim of providing a healthy environment for all ACES employees.



الصحة والسلامة المهنية

Marketing Training in Jordan



As part of ACES efforts to create a marketing culture among its staff and improve their marketing skills and performance, a training course on "effective marketing strategies & tools to promote ACES services" was held by Mr. Samir Said, ACES Corporate Marketing & Business Development Manager, in ACES Jordan in September 2011. The training courses covered several areas in marketing including market research and intelligence, customer relationship management, promotion, pricing, evaluation of marketing impact and the American Architecture/Engineering firms experience in Marketing.

Selected Major Projects

ACES Abu Dhabi

- ACES - Abu Dhabi recently completed the Settlement Survey for TAKREER Abu Dhabi and Ruwais Refineries and Phase. The client is TAKREER.
- ACES - Abu Dhabi has been awarded Topographical Survey and Underground Detection of 80 kilometers Pipeline and 15 wellheads for ADCO Bab Habshan 1 Project in Abu Dhabi. The client is CH2M Hill Veco.
- ACES - Abu Dhabi has been awarded Topographical Survey and Underground Detection of 59 kilometers pipeline and 308,000 sqm terminal area of ENOC EPC Falcon Project, Dubai. The client is PunjLloyd.
- ACES - Abu Dhabi is currently working for the geotechnical investigation of Yas -Mina Natural Gas Pipeline Project (from Yas island - Saadiyat Island To Mina Zayed Port) which consist of: 1) onshore works including drilling around 18 boreholes to a depth of 20m and 31 Trial pits to a depth of 3m and 2 CPT's and 20 electrical resistivity; 2) offshore works including drilling of 18 No. boreholes to a depth of 20m and 20 No. of electrical resistivity. The client is Veco Engineering.



ACES Jeddah



- ACES - Jeddah was recently awarded and completed the soil investigation & testing for Jeddah storm water drainage project-dam's works. The location of the project is Jeddah. In phase one of the project a total of 60 boreholes were drilled and in phase two a total of 110 boreholes were drilled at the depth of 25m below the natural ground level. The tests included SPT test, trial pit tests and field permeability test. The client is Saudi geological survey.
- ACES - Jeddah has completed the Geo survey and Geophysical study for the Beerbalilah project. The location of the project is Makkah. A total of 8 boreholes were drilled with a total depth of 285m. Other lab testing included uniaxial compressive strength test, point load test, etc. The client is Seba'a Real Estate Investment Company.
- ACES - Jeddah has carried out the geotechnical investigation for paint factory in Jeddah - K.S.A. Major Scope of works included topographic site survey, drilling of boreholes down to 15 m depth each borehole, field tests and laboratory test. The client is Arabian soil contractors Ltd.
- ACES - Jeddah has carried out the on-shore geotechnical soil investigation for Car parking building at King Fahd Hospital, Jeddah- KSA. A total of 17 boreholes were drilled to depth of 25m. Various laboratory tests such as direct shear, In-situ density, sieve analysis, etc. were carried out. The client is Khudair trading and contracting company.

ACES Jordan

- ACES - Amman commissioned the site investigation for the general and freight access roads as part of the project that will be built with a star trek theme, at Jabal Al Matal area, south of Aqaba- Jordan. The site investigation involved drilling of boreholes, excavating of test pits, conducting a detailed walkover (geological) survey, field infiltration testing, laboratory testing, topographic and geophysical surveys.
- ACES - Amman provided geotechnical services to the Dubai-Jordan Bank Project in Jordan, consisting of determining the proper location of tower crane with respect to the edge of excavation and supported by shoring system, in addition to several material testing services. The project client is Issa Haddadin & Partners Construction Company.
- ACES - Amman provided a report to the Umniah HQ-1 Existing Building in Amman-Jordan that includes laboratory investigations, analysis and interpretation of the findings and conclusions to aid in the assessment of the present condition of the building. The client is Umniah Telecommunication Company.



ACES Muscat

- ACES - Muscat has recently completed the geotechnical project for the proposed Iron Ore Concentration Plant at Sohar, Oman, for M/S. 115 Construction and Installation Company. The scope of works included drilling of 32 boreholes to depths up to 25m, undisturbed sampling of cohesive materials, excavation of test pits, performing field tests including SPT, down hole seismic tests, stand pipe piezometer installation, plate load tests, etc. Specialist laboratory tests including triaxial testing, consolidation tests, shear box tests in addition to routine laboratory tests were carried out. An interpretative report including recommendations for deep ground improvement, pile and shallow foundations were also provided.
- ACES - Muscat has recently awarded a geotechnical project for CCC - Proposed Design and Construction of Grade Separated Juncitons along Batinah Highway (Stage 1) For M/S. Ministry of Transport and Communications in Sultanate of Oman. The project comprises drilling of 24x25m boreholes, field and laboratory testing and provision of interpretative report. The consultant is Parsond Int.

Testimony



Dear Eng. Yousef Marei
ACES Abu Dhabi & Al Ain Manager

The construction of the project, which begun in 2008, was finally completed in July, 2011 after a long road to success over the last three years. Before mentioning our achievement, we feel confident that none of this timely completion could have ever been possible without your admirable sincerity and endless passion fully contributed to even every intolerable moment during the course of the implementation.

On behalf of all the executives and staffs of Ultra, we would like to take this opportunity to express our heartfelt appreciation and gratitude for all of your support and endeavor extended to us.

Looking forward to another opportunity working together as forever partner in Qatar, and wishing your great success in every aspect.

Very truly yours,

Kye Won Kang
Managing Director
Representative in Qatar
Ultra Construction & Engineering Co, Ltd.

NRMCA Concrete Technologists Middle East Certification Awarded to Managers From ACES Abu Dhabi and ACES Doha



NRMCA CTME certification was recently awarded to Eng. Mohammad Almadani, Sites Laboratories Manager of ACES Abu Dhabi and Eng. Ghaleb Al Zubi, Materials Department Manager of ACES Doha, who attended intensive 4-days programs held respectively in Dubai and Doha and followed by 2-hours written examination. The two gentlemen have achieved the highest scores among all other professionals who attended this certification so far. Consequently, Mr. Almadani and Mr. Al Zubi are listed as Concrete Technologist Middle East on the NRMCA official website (www.nrmca.org) under NRMCA Certified Professional Database.



CTME Certification program is based on the popular NRMCA Technical Courses on Concrete Technology and Durability offering the NRMCA Concrete Technologist Levels 2, 3 and 4 certifications in North America. The course has been tailor made to meet the Middle East market requirements and is a result of 2 years development between NRMCA and Grey Matters Consultants. It provides intensive training on the fundamentals of Ready Mixed Concrete, Cements, absolute volume mix proportioning methods, ACI Code & Specification Requirements, basic statistics as it applies to ACI 318, quality control, aggregates, concrete mixture materials, operation, handling, placing and concrete troubleshooting. The course emphasizes nationally accepted standard procedures and practices by referencing ACI and ASTM documents.

ACES would like to take this opportunity to congratulate Eng. Ghaleb Al Zubi and Eng. Mohammad Almadani on this achievement.

Congratulations

New Senior Appointment at ACES Dubai



Dr. Mohammed Hassouna
Projects Manager
ACES Dubai

ACES - Dubai is pleased to announce that Dr. Mohammed Hasan Ibrahim Hassounah (PhD, Doctor of Natural Science-Applied Geophysics) has recently joined ACES Regional Centre of Excellence for Geophysical Testing and Studies, as Projects Manager

Dr. Hassouna is a geophysical specialist and has an extensive experience of more than 25 years in the field and is well trained. He has been involved in many prestigious projects in UAE and other countries in the recent past. Dr. Hassouna technical competencies and experiences will be valuable to ACES and all its clients in the region.

ACES takes this opportunity to wish him all the success and progress with ACES.

Recent External Audit at ACES-DUBAI

Dubai Accreditation Department (DAC) made Re-Assessment audit to ACES-Dubai during 21-22 Oct 2011 to verify compliance of ISO/IEC 17025:2005 requirements. The audit covered the Quality Management System and technical section of geotechnical drilling, construction laboratory which includes concrete, chemical, steel, etc. and pile tests.

The audit was completed successfully with great positive reactions. ACES Dubai is proud to maintain high quality standards and achieve the confidence of DAC, as a transparent and professional laboratory.

