



GEOTECNICA

The Rock Engineers

GEOTECNICA HOUSE
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Awardee: *The National Engineering Excellence Award '96*
Member: Council of Engineering Consultants of the Philippines (CECOPHIL)

CURRICULUM VITAE

NAME : **ARTHUR SALDIVAR-SALI, MSc, DIC, FGS, PhD**

POSITION : GEOTECNICA CORP (*The Rock Engineers*)
Chairman of the Board and CEO
Engineering Geologist/Geotechnical Engineer

1.0 FIELDS OF SPECIALIZATION :

Engineering Geology and Geotechnics
Rock and Soil Mechanics
Foundation Engineering
Hydrogeology and Hydrology
Photogeology

2.0 EDUCATION :

: PhD., (Engg. Geology/Geotechnics)
Imperial College of Science, University of London, 1974.

: Master of Science in Engineering Geology,
Imperial College of Science, Univ. of London, 1970.

: Diplomate of the Imperial College (Engineering Geology)
Univ. London, 1970.

: Bachelor of Science in Geology,
Univ. of the Philippines, 1964.

3.0 AFFILIATIONS / EMPLOYMENT :

: Chairman of the Board, Geotecnica Corporation, 1978-Present.

: Chief Executive Officer, Geotecnica Corporation, 1987-Present.

: Director, Geotecnica Corp., 1987-Present.

: Professorial Lecturer in Engineering Geology, Univ. of the Philippines
National Institute of Geological Sciences, Univ of the Phil, 1985-Present

: Member, DPWH Board of Consultants National Building Code Revision
Committee, 2001 - Present

: Consultant, Dept. of Environment & Natural Resources (DENR)

: Chairman, Sub-Committee E, Board of Consultants, NBCRC

4.0 GOVERNMENT LICENSURE :

Professional Regulation Commission (PRC): Geologist License No. 394

5.0 AWARDS :

- a. PRC Outstanding Professional in Geology Award, 1998
- b. The National Engineering Excellence Award, 1996
By: Council of Engineering Consultants of the Philippines (CECOPHIL) and
Federation International des Ingenieurs Conseils (FIDIC).
- c. Ten Outstanding Young Men (TOYM) Award in Science and Geology, 1978.
- d. Outstanding Alumnus for Science and Technology
Baguio City High School, Philippines, 1979.
- e. Colombo Plan Scholar, Univ. of London, 1969-1973.
- f. Standard Oil Co. Scholar in Geology, U.P., 1960-1961.
- g. American Field Service (AFS) Exchange Student,
Lincoln NE High School, U.S.A., 1958-1959.

6.0 CAREER :

A. Consultancy & Construction Industry

- a. Chairman / CEO, Geotecnica Corp. (*The Rock Engineers*), 1987 - Present
- b. Principal, ASaldivar-Sali & Partners, 1987- Present
- c. Geotechnical / Engineering Geological Consultant, 1970- 1987

B. Academic

- a. Professorial Lecturer in Engineering Geology,
U.P. National Institute of Geological Sciences (NIGS)
- b. Professorial Lecturer in Geotechnical Engineering,
U.P., College of Engineering Graduate School, 1974-1977.
- c. Assistant Professor, U.P. College of Engineering, 1973-1974.
- d. Instructor, U.P. College of Engineering, 1965-1973.
- e. Student Teaching Assistant, U.P. Dept. of Geology, 1962-1964.

C. Government Service

- a. Deputy Director, Bureau of Energy Development (BED),
Ministry of Energy, Rep. of the Philippines, 1977-1987.
- b. Exploration Manager, Phil. National Oil Co. Exploration Corp. (PNOC-EC) 1977-1987
- c. Director for Technical Services, Petroleum Board, Rep. of the Phils. 1974-1977.
- d. Chief Geologist, Philippine National Oil Co. (PNOC) 1974-1977.

7.0 MEMBERSHIP IN SCIENTIFIC SOCIETIES :

- a. Geological Society of the Philippines (Director, 1979).
- b. Geological Society of London.(1970 - present).
- c. Philippines Society of Engineering Geologists.
- d. Circum-Pacific Council for Energy and Mineral Resources (Director at Large, 1982-1989 representing the Philippines and ASEAN countries).
- e. American Society of Mining Engineers, (1991). President, Philippine Section, 1991-92.
- f. Council of Engineering Consultants of the Philippines (CECOPHIL), Director 1991-93.
- g. Federation International des Ingenieurs Conseils (FIDIC).
- h. Herbert Lapworth Club, Imperial College of Science, University of London.
- i. Univ. of the Phil. Geology Alumni Association (Founding President, 1980 to 1985).
ASEAN Council on Petroleum (ASCOPE) 1976-1980 (representing PNOC)

8.0 PUBLICATIONS

A. Scientific Journals:

Saldivar-Sali, A., et al, 1986, Tectonic Setting and Petroleum Possibilities of Philippine Sedimentary Basins: Transactions, 4th Circum-Pacific Energy and Mineral Resources Conference, Singapore, AAPG Publication.

Saldivar-Sali, A., 1983, Design and Optimization of the Slopes of the Proposed Hinobaan Open Pit Mine: Modern Mining & Engineering Journal. May Issue.

Saldivar-Sali, A., et al, 1981, The Geology of Offshore Northwest Palawan, Philippines - 1: Oil & Gas Journal, V. 79, No. 47, pp. 119-128.

Saldivar-Sali, A., et al, 1981, The Geology of Offshore Northwest Palawan, Philippines -2: Oil & Gas Journal, V. 79, No. 49, pp. 234-242.

Saldivar-Sali, A., et al, 1981, The Geology of Offshore Northwest Palawan, Philippines -3: Oil & Gas Journal V. 79, No. 50, pp. 196-199.

Saldivar-Sali, A., 1978 Reef Exploration in the Philippines: 2nd Circum-Pacific Energy and Mineral Resources Conference, Honolulu, Hawaii.

Saldivar-Sali, A.,1978, Evaluation of Geological Conditions in the Malubog Formation for the Stability Analysis of a Cebu Underground Coal Mine: Phil. Mining Record, V.11, No. 1, pp. 21-36.

McGown, A., A. Saldivar-Sali, & A. Radwan, 1972, Fissure Patterns and Slope Failure in Boulder Clays, Scotland, Quarterly Journal of Engineering Geology (London), V.6, No. 3.

Saldivar-Sali, A., 1970, A Review of the Effects of Discontinuities on the Engineering Behaviour of Sedimentary Rocks: MSc Thesis, University of London, 65 p.

Saldivar-Sali, A., 1966, Photo Interpretation in Photogrammetry and Engineering: (Paper read at the First National Convention of Geodetic Engineers).

Saldivar-Sali, A., 1966, Photogeologic Survey of Marinduque Island: Phil. Journal Geodesy & Photogrammetry, V.1 No. 3.

Saldivar-Sali, A., et al, (in press), Newly Discovered Branch of the Philippine Fault System: Journal of the Geological Society of the Philippines.

Saldivar-Sali, A., et al, (in press), A Middle Miocene Reconstruction of the Philippines and Its Consequences Concerning Petroleum Exploration in the Northern Central Philippine.

Saldivar-Sali, A., et al, (in press), a Middle Miocene Reconstruction of Luzon and the Visayas, Philippines.

Saldivar-Sali, A., et al, (in press), Western Mindoro, Philippines, A Frontier Overthrust Belt.

B. Books

Saldivar-Sali, A., 1968, "Photogeologic Study of Philippine Diorites" in Practical Application of Cartographic Techniques, Location, and Development of Mineral Resources: (New York), United Nations. 507 p.
(U.N. 5th Regional Cartographic Conference in Asia & Far East, Mar. 8-22, 1967, Canberra, Australia, V.2. Proc. At Conf. Agenda, Item 9).

Saldivar-Sali, A., 1973, Influence of Fissuring on the Engineering Behaviour of Soft Rocks: (London), Univ. of London Ph.D. Thesis. 454 p.

9.0 GEOTECHNICAL AND ENGINEERING GEOLOGICAL PROJECTS

A. Horizontal Civil Infrastructures

(As Engineering Geologist/ Geotechnical Engineer/ Project Director)

1. Drilling for grout injection holes; pressure grouting, Itbayat Irrigation Dam, Itbayat, Batanes, DEPARTMENT OF PUBLIC WORKS & HIGHWAYS, March, 2003-November 2003.
2. Geotechnical exploration and geomechanics laboratory testing of shallow soil, MDC Properties, Pasig City, MAKATI DEVELOPMENT CORP., March 2002.
3. Drilling for micropiles, La Mesa Watershed, Novaliches, Quezon City, BAUER FOUNDATIONS PHILIPPINES, INC., April, 2002.

4. Ground and river engineering investigation: geological hazards assessment; seismic / earthquake risk analysis; flood risk evaluation, MDC Properties, Pasig City, MAKATI DEVELOPMENT CORP., March 2002.
5. Geological structural assessment and seismic / earthquake risk analysis, MDC Properties, Lipa, Batangas, MAKATI DEVELOPMENT CORPORATION, Jan. 2002 – Feb. 2002.
6. Geological, seismic hazards and river bank engineering design, Potenciano Development, Bacoor-Imus, Cavite, CROWN ASIA PROPERTIES, INC., September 2001.
7. Geotechnical and soil investigation works, drilling, field and geomechanics laboratory testing, CARMONA ACCESS ROAD-PHASE 1, Carmona, Laguna, KPPI LAND CORPORATION, November 2001.
8. Engineering Geological/Geotechnical Survey and Mapping, Northern Negros Geothermal Project, Bago City, Negros Occidental; Philippine National Oil Company-Energy Development Corp., August 2000.
9. Engineering Georesistivity Survey to Delineate Presence of Cavities, Caltex Lapu-lapu Terminal, Mactan, Cebu, Caltex Philippines, Inc., August 2000.
10. Geotechnical/Hydrogeological and Testing Services, Geothermal Steam Pipeline Project, Malitbog, Leyte, Phils.: *PHILIPPINE NATIONAL OIL CO.-ENERGY DEV. CORP.*, 1994.
11. Geotechnical/Hydrogeological and Testing Services, Geothermal Steam Pipeline Project, Upper Mahiao, Leyte, Phils.: *PHILIPPINE NATIONAL OIL CO.-ENERGY DEV. CORP.*, 1994.
12. Geotechnical/Hydrogeological Investigation, Geothermal Steam Pipeline Project, Mt. Apo 1, Kidapawan, Cotabato, Phils.: *PHILIPPINE NATIONAL OIL CO.-ENERGY DEV. CORP.*, 1992.
13. Geotechnical/Hydrogeological Investigation, Geothermal Pipeline Route, Bacman II Project, Bacon, Phils.: *PHILIPPINE NATIONAL OIL CO.*, 1991.
14. Geotechnical / Engineering Geological Investigation, Pagbilao 700MW Coal-Fired Thermal Power Plant, Pagbilao Grande Island, Quezon Phils.: *BHP ENGINEERING PHILS., INC.*, 1991.
15. Geotechnical/ Foundation Investigation, Georesistivity Survey for the Pangasinan Cement Factory, Bolinao, Pang., 1995-96.
16. Geotechnical and Engineering Geological Assessment of the Ground Conditions to Determine Ambient Hydrogeological Conditions and Geological Structures vis-a-vis the Landslides at Cherry Hills Subdivision, Antipolo City, *CECOPHIL*, 1999-2000.
17. Integrated Geotechnical / Georesistivity Investigation of Sinkholes, Caltex Oil Depot, Cebu,; Caltex Philippines, Inc., 1999-2000.

18. Engineering Geological and Geohazards Assessment (EGGAR), Canyon Woods Annex A & B and Golf Course, Laurel, Batangas; Tagaytay Grassland Company, Inc. 1999-2000.
19. Georesistivity Survey to Delineate Presence of Cavities, Monte Real Project, Davao, Philippines, Alsons Development and Investment Corporation., 1999-2000.
20. Geotechnical & Foundation Investigation, Apo Cement Jetty Expansion, Naga, Cebu; Apo Cement Corp, 1999.
21. Stability Assessment of the Bank Slope, Makulapnit Siltation Dam, Marinduque, Philippines; Marcopper Mining Corp./Placer Dome Technical Services Inc. (Canada), 1999.
22. Geotechnical Stabilization of the Failed Northwest Slope, Suntrak Grain Terminal, Mabini, Batangas; Suntrak Corp., 1999.
23. Topographic Survey and Slope Stability Analysis, Bakun Hydroelectric Project: Employees' quarters Area, Benguet, Mountain Province; Transfield Philippines, Inc., 1999.
24. Geotechnical Assessment and Design of Intercept Tunnel of the Tapan Mine Pit, Sta. Cruz, Marinduque; Marcopper Mining Corp./Placer Dome Technical Services, Inc. (Canada), May 1997 to December 1997.
25. Subsurface Geotechnical Investigation, Apo Cement Plant Expansion Project, Naga, Cebu: *APO CEMENT CORPORATION*, February, 1997.
26. Foundation Drilling, Grouting and Geotechnical Analysis, Apo Cement Plant Expansion Project, Naga, Cebu: *DYKERHOFF AND WIDMAN AG (GERMANY)*, 1995-1996.
27. Limestone Reserve Drilling and Investigation, Apo Cement Plant Expansion Project, Naga, Cebu: *J.G. SUMMIT HOLDINGS, INC.* 1995-1996.
28. Engineering Geological and Geotechnical Investigation, Bohol Onshore Pipeline Route: *BROWN & ROOT, INC., (U.S.A.)*, 1995-1996.
29. Marine Hydrographic and Geophysical Surveys, APO Cement Jetty, Cebu: *J.G. SUMMIT HOLDINGS, INC.* , 1995-1996.
30. Evaluation of Offshore Geological and Geotechnical Studies, Offshore Palawan Nido Oilfield: *MINISTRY OF ENERGY*, 1978.
31. Evaluation of Offshore Geological and Geotechnical Studies, Offshore Palawan Cadlar Oilfield: *MINISTRY OF ENERGY*, 1979.
32. Soil Investigation, Manila Bay Reclamation Project: *JAN DE NUL (BELGIUM)*, 1993-1995.

33. Foundation Evaluation of the San Antonio Mine Conveyor System, Sta. Cruz, Marinduque: *MARCOPPER MINING CORP.*, 1991.
34. Engineering Geological and Soil Foundation Studies for Flood Control Dikes, Pasig River, Metro Manila: *REPUBLIC-ASAHI GLASS CORP.*, 1989.
35. Seismic Refraction Survey to Define Bedrock Topography of a Placer Gold Prospect, Aceh, Sumatra, Indonesia: *CAMBRIDGE MINING GROUP, (AUSTRALIA)*, 1988.
36. Rock and Soil Foundation Investigations for a 2-km-long Tailings Dike, Homonhon Island, Samar, Philippines: *BAYER A.G. (GERMANY)*, 1987.
37. Engineering Geological and Foundation Investigation to Assess the Site of a Mine Tailings Dam, Homonhon, Island, Samar, Philippines: *BAYER A.G. (GERMANY)*, 1987.
38. Geotechnical and Engineering Geological Investigation to Assess the Site of a Tailings Dam, Lugad, Samar, Philippines: *ALAMAG PROCESSING CORP.*, 1987.
39. Engineering Geological, Foundation Investigation, and Design of the Abaca River Dam, Llorente, Eastern Samar, Philippines: *ALAMAG PROCESSING CORP.*, 1986.
40. Engineering Geological, Foundation Investigation, and Design of the Lugad River Water Reservoir Dam, Llorente, Eastern Samar, Philippines: *BAYER AG (GERMANY)*, 1986.
41. Dam Foundation Investigation and Design of the Hinobaan Copper Mine Tailings Dam; Philippines: *LEPANTO CONSOLIDATED MINING CO.*, 1982.
42. Foundation Drilling, Testing and Investigation, for Small Water Impounding Dam, Consolidation, Cebu, Philippines: *TECHNOSPHERE CONSULTANTS, INC.*, 1982.
43. Foundation Drilling and Testing of the Sibariwan Small Water Impounding Dam, Antique, Philippines: *TECHNOSPHERE CONSULTANTS, INC.*, 1981.
44. Foundation Drilling, Testing and Investigation for the Flood Control Dikes, Lower Agusan River Development Project, Mindanao, Philippines: *NIPPON KOEI-NIKKEN (JAPAN)*, 1981.
45. Foundation Drilling and Testing, Agos Hydro-electric Power Dam, Infanta, Quezon, Philippines: *NATIONAL POWER CORP.*, 1981.
46. Soil Mechanics Testing, Abulog River Dam Kalinga, Apayao, Philippines: *DRAGAGES ET TRAVAUX PUBLICS (FRANCE)*, 1979.

B. Vertical Civil Infrastructures

(As Proj.Principal/Geotechnical Engineer /Engineering Geologist)

1. Geotechnical investigation and drilling, geomechanics laboratory testing, georesistivity survey for cavity detection, Baguio Export Processing Zone, Loakan, Baguio City, TCGI ENGINEERS, April 2004.
2. Geotechnical investigation and geomechanics laboratory testing, STARMALL HIGHRISE COMPLEX, Mandaluyong City, CROWN ASIA PROPERTIES, INC., September 2003.
3. Borehole drilling, sampling and chemical testing for soil and water pollutants, Laguna Technopark, AMKOR TECHNOLOGY PHILIPPINES, INC., May 2003.
4. Engineering geotechnical/soil & rock investigations, geologic/seismic hazards assessment, flood vulnerability analysis, groundwater aquifer evaluation, Gen. Trias, Cavite, AMA GROUP OF COMPANIES, March 2003.
5. Soil & rock engineering investigation; geologic & seismic hazards assessment, geotechnical drilling, sampling, field and geomechanics laboratory testing, Commonwealth Avenue, Quezon City, ZAPANTA REALTY & DEVELOPMENT CORP., September 2002.
6. Drilling, test pitting and geomechanics laboratory testing for the preparation of the Engineering Geological and Geohazards Assessment Report (EGGAR), Pasig City, MAKATI DEVELOPMENT CORP., September 2002.
7. Foundation design of fuel tanks, DROMAG CONSULT, INC., Sarangani Province, July 2002.
8. Foundation design of fuel tanks, Unioil Tank Farm, July 2002.
9. Structural testing; concrete core drilling; unconfined compressive strength testing; grouting, PNB CUBAO BRANCH, Cubao, Quezon City, PHILIPPINE NATIONAL BANK, June 2002.
10. Geologic mapping; geohazards assessment; geotechnical drilling & field testing; slope stability assessment; seismic / earthquake risk assessment, ANSCOR LAND, INC./TRUSTESHIP, INC., Loyola Grand Villas, Quezon City, June 2002.
11. Geological hazards assessment, earthquake risk assessment, subsurface geotechnical & foundation investigation, geomechanics laboratory testing, slope stability evaluation, Don Pablo Hills Subd., Dinalupihan, Bataan, ECT CONSULTING ENGINEERS, April 2002.
12. Geotechnical subsurface foundation investigation, field and geomechanics laboratory testing, Sta. Cruz, Manila, FLASH BUILDERS, May, 2002.

13. Geotechnical drilling, sampling and chemical testing for soil/water pollutants, Sta. Rosa, Laguna, AMKOR TECHNOLOGY (PHIL.), INC., November 2001.
14. Soil analysis of chemical and diesel storage sites, AMKOR-SPEC ECONOMIC ZONE, Muntinlupa City, AMKOR TECHNOLOGY PHILIPPINES, INC., October 2001.
15. Geotechnical drilling, sampling, foundation investigation, field and geomechanics laboratory testing, MOBILE COMMUNICATIONS SUBSTATION, Calapan, Oriental Mindoro and Mabalacat, Pampanga, MIRANT (PHILIPPINES) CORPORATION, October 2001- November 2001.
16. Geotechnical drilling, sampling, field and geomechanics laboratory testing, Pasong Tamo, Makati City, CAROLWOOD PROPERTIES CORP., August, 2001.
17. Geological and geotechnical investigation and geomechanics laboratory testing, Acquarius Warehouse, Pasig City, AQUARIUS AGRO-INDUSTRIAL DEVELOPMENT CORP. Aug. 2001- August 2001.
18. Subsurface foundation investigation, drilling, geomechanics laboratory testing, Bo. Tanong, Marikina City, COATS MANILA BAY, INC., July 2001 - July 2001.
19. Geotechnical investigation, drilling, sampling and geomechanics laboratory testing, Rodriguez, Montalban, Rizal, ACERHOMES DEVELOPMENT CORP., July 2001 - August 2001.
20. Geotechnical investigation, drilling, sampling, field and geomechanics laboratory testing, Sto. Tomas, Batangas, G & W ARCHITECTS, ENGINEERS, PROJECT DEVELOPMENT CONSULTANTS, June 2001.
21. Geotechnical subsurface foundation investigation, field and geomechanics laboratory testing (Blks. 17, 18, 19 20/22 and 45a), Ma-a, Davao City, ALSONS DEVELOPMENT & INVESTMENT CORPORATION, May 2001 - July 2001.
22. Tank settlement monitoring survey, Lapu-lapu Terminal, Lapu-Lapu City, Cebu, CALTEX PHILS., INC., March 2001.
23. Tank settlement monitoring survey, Caltex Lapu-lapu Terminal, Mactan, Cebu, CALTEX PHILIPPINES, INC., December 2000.
22. Geotechnical subsurface foundation investigation, field and geomechanics laboratory testing, Las Terrazas Housing Development, Davao City, ALSONS DEVELOPMENT & INVESTMENT CORP., December 2000.
23. Geotechnical subsurface foundation investigation, field and geomechanics laboratory testing, Carmelray Industrial Park II, Calamba, Laguna, RBF DEVELOPMENT CORPORATION, December 2000.
24. Subsurface Foundation Investigation, Topographic Survey and Siltation Analysis for NPC Ambuklao Power Station, Bokod, Benguet, HANSEI CORPORATION, October 2000 - January 2001.

25. Geotechnical Drilling, Laboratory Testing, Engineering Geological and Geohazards Assessment (EGGAR), Palmera Homes Housing Developments, Caloocan City/Taytay, Rizal/Antipolo City/Cebu City; Crown Asia Properties, Inc., April, 2000 to June 2000.
26. Assessment of Earthquake-induced Foundation and Wall Cracks, SC Johnson Building; Makati City, SC Johnson, Inc., 2000.
27. Geotechnical & Foundation Investigation, Export Processing Zone, Baguio City; Philippine Economic Zone Authority (PEZA), March 2000.
28. Geotechnical & Foundation Investigation, Export Processing Zone, Mariveles, Bataan , Philippine Economic Zone Authority (PEZA), March 2000.
29. Geotechnical & Foundation Investigation, Export Processing Zone, Rosario Cavite; Philippine Economic Zone Authority (PEZA), March 2000.
30. Geotechnical & Foundation Investigation, Export Processing Zone, Mactan, Cebu; Philippine Economic Zone Authority (PEZA), March 2000.
31. Geotechnical & Foundation Investigation, Export Processing Zone, Mactan, Cebu; Philippine Economic Zone Authority (PEZA), March 2000.
32. Geotechnical & Foundation Investigation, St. Paul's Pasig Pre-School Building, Pasig City, St. Paul's College, 2000.
33. Geotechnical & Foundation Investigation, Carmelray Industrial Compound, Carmelray, Laguna; RBF Development Corp., 2000.
34. Geotechnical & Foundation Investigation, Amkor Anam Microchip Production Facilities, Sucat, Paranaque City; Amkor Anam Pilipinas Inc., 2000.
35. Engineering Geological and Geohazards Assessment (EGGAR), Kawayan Cove Resorts, Nasugbu, Batangas; Kawayan Cove Development Corp., 2000.
36. Geotechnical & Foundation Investigation, Tagaytay Highlands, Tagaytay City; Belle Corp 2000.
37. Geotechnical & Foundation Investigation, The Brent School Compound, Pasig City; Brent International School, 1999-2000.
38. Geotechnical & Foundation Investigation, Bureau of Treasury Ayuntamiento Building, Intramuros, Manila; The Philippine Bureau of Treasury, 1999.
39. Injection Grouting Works, Mactan, Cebu: *PRIMETOWN PROPERTY GROUP, INC.*, 1996-1999.
40. Geotechnical Subsurface Investigation Drilling Test Pitting and Sampling, Tañong, Marikina City: *J & P MANILA BAY SPINNING MILLS, INC.*, 1997.

41. Geotechnical Drilling & Cavity Detection for Proposed Multi-storey Condotel Towers Project, Mactan, Cebu: *GOLDLAND PHILS.*, 1997.
42. Geotechnical Drilling and Foundation Investigation for Proposed Multi-Storey Building, Mandaluyong City: *GOLDLAND PHILS.*, 1997.
43. Geotechnical Investigation, Drilling Grouting & other Remedial Measures, Gold Coast Tower Project, Mactan Cebu: *PRIMETOWN PROPERTY GROUP, INC.*, 1995-1996.
44. Geotechnical/Foundation Investigation of the Pangasinan Cement Co. (PCC) Plant Complex, Bolinao, Pangasinan, *AIC/TUNTEX (TAN YU GROUP OF COMPANIES)* 1994-1995.
45. Geotechnical/Foundation Investigation of the PCC Coal-Fired Power Plant Complex, Bolinao, Pangasinan, *AIC/TUNTEX (TAN YU GROUP OF COMPANIES)* 1994-1995.
46. Geotechnical/Foundation Investigation for the Solid Cement Expansion Project, Teresa, Rizal: *PHINMA GROUP*, 1991.
47. Offshore Drilling and Investigation for the Manila Bay Reclamation Project, Parañaque, Phils.: *JAN DE NUL B.V. (BELGIUM)* 1993-1995.
48. Foundation Drilling and Investigation for 1000MW-Coal-Fired Power Plant, Pagbilao, Quezon: *HOPEWELL ENERGY CORP. (Hongkong)*, 1994.
49. Geotechnical/Foundation Investigation for the ENRON-U.S. Subic Bay 210MW Power Plant Project, Phils.: *ENRON/BHP ENGINEERING PHILS., INC.*, 1993.
50. Soil and Rock Mechanics Testing for Foundation Analysis, Small Hydropower Project, Kanan 1 Scheme, General Nakar, Phils.: *NIPPON-KOEI AND LAHMAYER INT'L*, 1992.
51. Soil and Rock Mechanics Testing for Foundation Analysis, Small Hydropower Project, Bakun, Philippines: *NIPPON-KOEI AND LAHMAYER INT'L*, 1992.
52. Soil and Rock Mechanics Testing for Foundation Analysis, Small Hydropower Project, Ilocos Sur, Phils.: *NIPPON-KOEI AND LAHMAYER INT'L*. 1992.
53. Rock and Soil Mechanics Testing for Foundation Analysis, Bago Hydroelectric Dam Project, Bago, Negros Occidental, Phils.: *SIR WILLIAM HALCROW & PARTNERS LTD.*, 1991-1992.
54. Geotechnical/Foundation Investigation, 700MW Coal-Fired Thermal Power Plant, Pagbilao Grade Island, Quezon Province, Phils.: *BHP ENGINEERING PHILS., INC.*, 1992.
55. Foundation Investigation and Analysis for a Two-Storey Townhouse, Mines View Park, Baguio City, Phils.: *CEST INC., CONSULTANTS*, 1992.
56. Geotechnical/Foundation Investigation, PureFoods Flour Mill Plantsite, Mabini, Batangas, Phils., 1991.

57. Geotechnical/Foundation Investigation, Cavite Export Processing Zone Site, Cavite, Philippines: *NJS (JAPAN) ENVIRONMENTAL CONSULTANTS, PHILS.*, 1991.
58. Geotechnical/Foundation Investigation, July 1990-Earthquake Rehabilitation Project, Pangasinan, Phils.: *GOVERNMENT*, 1991.
59. Geotechnical/Foundation Investigation, July 1990-Earthquake-Rehabilitation Project, Tarlac, Phils.: *GOVERNMENT*, 1991.
60. Geotechnical/Foundation Investigation, July 1990-Earthquake-Rehabilitation Projects, Benguet, Phils.: *GOVERNMENT*, 1991.
61. Geotechnical/Foundation Investigation, July 1990-Earthquake Rehabilitation Projects, Ilocos Sur, Phils.: *GOVERNMENT*, 1991.
62. Geotechnical/Foundation Investigation, July 1990-Earthquake Rehabilitation Projects, La Union, Phils.: *GOVERNMENT*, 1991.
63. Geotechnical/Foundation Investigation, July 1990-Earthquake Rehabilitation Projects, Olongapo City, Phils.: *GOVERNMENT*, 1991.
64. Offshore and Onshore Foundation Investigation, Tabangao, Phils.: *PILIPINAS SHELL PETROLEUM REFINERY FACILITIES AND JETTIES*, Tabangao, Phils., 1990.
65. Foundation Investigation and Geotechnical Evaluation of the Heater Structure, Batangas, Phils.: *CALTEX REFINERY*, 1990.
66. Foundation/Geotechnical Investigation, Cement Plant Expansion, Rizal, Philippines: *SOLID CEMENT CORP.*, 1990.
67. Engineering Geological, Foundation Investigation and Design, Cagusuan River Reservoir Dam, Homonhon Island, Eastern Samar, Philippines: *BAYER AG (GERMANY)*, 1988.
68. Engineering Geological Foundation Investigation and Design, Darabdaban River Tailings Dam, Homonhon Island, Eastern Samar, Philippines: *ALAMAG PROCESSING CORP.*, 1988.
69. Engineering Geological and Foundation Investigation, Llorente River Reservoir Dam, Llorente, Eastern Samar, Philippines: *ALAMAG PROCESSING CORP.*, 1987.
70. Seismic Refraction Studies to Evaluate Foundation Rockhead, Earthfill Dam, Longos Point, Paracale, *BHP -ENGINEERING PTY. LTD. (AUSTRALIA)*, 1987.
71. Rock and Soil Foundation Investigation for the Chromite Mine Mill Facilities, Homonhon Island, Samar, Philippines: *BAYER A.G. (GERMANY)*, 1987.
72. Geotechnical/Foundation Investigation of the ENRON-U.S. Subic Bay 210MW Power Plant, Philippines: *ENRON/BHP ENGINEERING PHILS., INC.* 1993

C. HYDROLOGICAL, HYDROGEOLOGICAL, OFFSHORE PROJECTS

(As Proj. Principal/ Hydrogeologist)

1. Onshore & offshore geotechnical investigation; engineering geological mapping; slope stability analysis; drilling; sampling; field and geomechanics laboratory testing; & foundation design for port & road development, Berong Nickel Mine, Berong, Palawan, TMM MANAGEMENT INC./ LEIGHTON CONTRACTORS PHILS. (Australia), August 2005.
2. Geotechnical investigation, surveying, drilling; sampling; field and geomechanics laboratory testing; technical design and analysis of the port development project, Port of Zamboanga, Zamboanga City, PHILIPPINE PORTS AUTHORITY, January 2004 - March 2004.
3. Geotechnical investigation, surveying, drilling sampling, field and geomechanics laboratory testing for port development projects at Manila North Harbor; Puerto Princesa; Balanacan; Pantao; Cagayan de Oro; Nasipit; Calapan, Gen. Santos; Dalahican; Davao City; Orion; Dumaguete; Dapitan; Zamboanga City; Bislig, and Iloilo, PHILIPPINE PORTS AUTHORITY, October 2002 - November 2003.
4. Georesistivity survey for groundwater exploration, geohazards assessment, earthquake risk analysis, flood vulnerability analysis, Las Piñas City, STATE PROPERTIES CORP., May 2002.
5. River current velocity measurement survey, Riotuba River Estuary, Palawan, HATCH ASSOCIATES, INC., April 2002.
6. Offshore subsurface soil investigation, geotechnical drilling, sampling, field and geomechanics laboratory testing, Mindanao Coal-Fired Power Plant, Villanueva, Misamis Oriental, RIOFIL CORPORATION, September 2001- November 2001.
7. Offshore geotechnical drilling and investigation, hydrographic survey, Villanueva, Misamis, Oriental, RIOFIL CORPORATION, July 2001- July 2001.
8. Geotechnical drilling, sampling, field and laboratory testing, Port of Batangas, Batangas City, FLUOR DANIEL-AMEC PHILS., INC., May 2001.
9. Offshore Drilling / Geotechnical Investigation & Hydrographic Survey Proposed Pier Site, PHIVIDEC, Cagayan de Oro, LIMKETKAI MANUFACTURING CORPORATION, October, 2000 - February 2001.
10. Hydrotechnical study for sanitary sewerage and stormwater conveyance system for the subdivision, Gardens of Maia Alta Housing Development, Antipolo City, CROWN ASIA PROPERTIES INC., August 2001.
11. Soil contamination analysis for environmental impact assessment, Amkor-Anam Microchip Production Facilities, Cupang, Muntinlupa, Amkor-Anam Pilipinas, December 2000.

12. Geotechnical Exploration, Georesistivity and Hydrogeological Survey; FDMC Properties, Rosario, Cavite; Filoil Development and Management Corporation, August 2000.
13. *Marine* Hydrographic and Seismic Surveys, Cebu Strait, Bohol-Cebu Offshore Pipeline Project: *BROWN & ROOT, INC., (U.S.A.)*, 1995-1996.
14. Georesistivity Survey for Ground Water Exploration. PCIB Homes Los Baños Project, Los Baños, Laguna, *PCIB HOLDINGS, INC., 1997.*
15. Georesistivity Survey for Groundwater Exploration and Exploration Drilling, Semirara Island: *DMCI HOLDINGS, INC., 1997.*
16. Georesistivity Survey to Determine Fault Locations for CCC Exploration Lay-out Plan, San Ildefonso, Bulacan, *BACNOTAN CEMENT CORP., 1997.*
17. Groundwater Exploration and Waterwell Development, Bolinao, Pangasinan: *PANGASINAN CEMENT CORP., 1995-1996.*
18. Georesistivity Survey and Deep Well Drilling for Groundwater Supply, Bolinao, Pangasinan: *PANGASINAN CEMENT CO., AIC/TUNTEX (TAN YU GROUP) 1995.*
19. Georesistivity Survey and Deep Well Drilling for Groundwater Supply, 1000 MW Coal-Fired Plant, Pagbilao, Quezon: *HOPEWELL ENERGY CO., 1994.*
20. Integrated Watershed Management Plan and Hydrological Study for Okoy and Banica Watersheds, Southern Negros Geothermal Project: *PNOC-ENERGY DEVELOPMENT CORP., 1994-1995.*
21. Hydrogeological Survey for Groundwater Impact Study, 700MW Coal-Fired Power Plant, Pinamucan, Batangas, Phils.: *BHP ENGINEERING PHILS., INC., 1992.*
22. Georesistivity Survey for Groundwater Exploration, ENRON-U.S. 110MW Power Plant, Tabangao, Batangas, Phils.: *BHP ENGINEERING PHILS., INC., 1992.*
23. Georesistivity Survey for Groundwater Exploration, Plant Site, Antipolo, Rizal, Phils.: *INTERNATIONAL COMMUNICATION CORP., 1991.*
24. Georesistivity Survey for Groundwater Exploration, Cement Plant Site, Antipolo, Rizal, Phils.: *SOLID CEMENT CORP., 1991.*
25. Georesistivity Survey and Geological Studies to Delineate Mineral Reserves of Silica Sand Deposits, Roxas, Palawan: *REPUBLIC-ASAHI GLASS CORP., 1989.*
26. Hydrological and Hydrogeological Investigations for Industrial Water Supply of a Chromite Mine, Llorente, Samar, Phils.: *ALAMAG PROCESSING CORP., 1988.*
27. Hydrological and Hydrogeological Investigations for the Alamag Chromite Mine, Homonhon Island, Samar, Phils.: *BAYER A.G. (Germany), 1988.*

28. Meteorological, Hydrogeological and Foundation Investigation of the Cantilado River Reservoir Dam, Homonhon Island, Eastern Samar, Philippines: *BAYER CORP., (Germany)*, 1987.
29. Hydrological and Hydrogeological Analyses of the Chromite Mine Tailings Dam, Homonhon Island, Philippines: *BAYER CORP (Germany)*, 1987.

D. OPEN PIT/SLOPE STABILITY/UNDERGROUND PROJECTS

(As Proj. Principal/Geotechnical Engineer/Engineering Geologist)

1. Geotechnical and engineering geological evaluation of December 2004 landslide at Panian Mine, Semirara Island, SEMIRARA COAL CORPORATION, May 2005.
2. Geotechnical and soil investigation works, drilling, field and geomechanics laboratory testing in aid of remedial works for differential settlement, Covanta Coal-Fired Plant, Mauban, Quezon, COVANTA ENERGY (U.S.A), January 2005.
3. Geotechnical site investigation and geomechanics laboratory testing for the engineering design and remedial works in specified landslide areas, Cebu, Davao and General Santos, JAPAN OVERSEAS CONSULTANTS, May 2004-January 2005.
4. Slope Stabilization works: drilling for micropiles; drilling for anchor bolts; construction of micropiles, rock anchor and cribwall, VILLA MILAGROSA TOWNHOMES, San Pedro, Laguna, PHINMA PROPERTY HOLDINGS CORPORATION, August 15, 2003 to September 7, 2004.
5. Design and construction of stabilization measures of existing fuel storage tank; subsurface geotechnical investigation for six future tanks, UNIOL STORAGE TANK FARM, Mariveles, Bataan, OILINK INTERNATIONAL CORP., May 2002.
6. Subsurface geotechnical investigation for river bank stability analysis; geomechanics laboratory testing, Bacoar, CAVITE PROPERTIES, INC., April 2002.
7. Drilling and installation of deep weepholes to enhance the stability of the river cliff located in the subdivision, MGS-La Marea Subdivision, San Pedro, Laguna, CROWN ASIA PROPERTIES, INC., March 2002.
8. Geotechnical stability investigation, drilling, field and geomechanics laboratory testing; engineering geological and geohazards assessment (EGGAR), Filinvest East Country, Taytay/Angono/Antipolo, Rizal, FILINVEST LAND, INC., February 2002.
9. Subsurface geotechnical investigation, drilling, sampling, field and geomechanics laboratory testing for river bank stability analysis, Villa Milagrosa Townhomes, PHINMA PROPERTY HOLDINGS CORPORATION, January 2002 - February 2002.

10. Slope stability investigation, engineering geological mapping; design of slope protection measures; evaluation of shoreline protection measures, VILLA MILAGROSA (San Pedro, 0Laguna) BIPC PROPERTIES (Calaca, Batangas), BACNOTAN INDUSTRIAL PARK CORPORATION, October 2001.
11. Ground engineering investigation, slope stability and design of remedial measures, San Pedro, Laguna, CROWN ASIA PROPERTIES, INC., June 2001.
12. Slope stabilization measures, construction of rock bolt anchors, weepholes, benches, and drainage canals, Taytay, Rizal, CROWN ASIA PROPERTIES, INC., March 2001 to September 2001.
13. Ground engineering investigation, slope stability analysis and design of remedial measures, La Marea Housing Development Phase II & III, San Pedro, Laguna, CROWN ASIA-SOUTH, May 2001.
14. Stability evaluation and design of remedial measures for the site of an unfinished building, Seattle St., Cubao, Quezon City, MANILA WATER COMPANY, April 2001.
15. Slope stabilization measures, construction of rock bolt anchors, weepholes, benches, and drainage canals, Palmera Heights Housing Development, Kamagong & Acacia Lanes, Cainta, Rizal, CROWN ASIA PROPERTIES, INC., March 2001.
16. Geotechnical engineering consultancy services to review the stability of mine infrastructures at the Marcopper Mines site, Sta. Cruz, Marinduque, MARCOPPER MINING CORP., January 2001.
17. Slope stability evaluation of the Belle-View and Funicular landslide areas, Tagaytay City, BELLE CORPORATION, December 2000.
18. Geotechnical review and analysis for proposed slope stabilization works, Peace Village, San Luis, Antipolo, Rizal, ECT CONSULTING ENGINEERS, November 2000.
19. Engineering geological mapping, field sampling and testing, laboratory testing, slope stability analysis, and design of rehabilitation measures for the landfill, General Santos Landfill, South Cotabato, COWI CONSULTANTS, November 2000.
20. Drilling and well clean-up services for the Landfill Gas Project, Carmona Sanitary Landfill, Carmona, Cavite, PNOG EXPLORATION CORPORATION, November 2000
21. Geotechnical Analysis & Stability Risk Assessment of Lower Makulapnit Earth Dam, Sta. Cruz, Marinduque; Marcopper Mining Corp./Placer Dome Technical Services, Inc. (Canada), May 2000 to September 2000.
22. Construction of Remedial Measures to Stabilize the Lower Makulapnit Dam left bank, Sta. Cruz, Marinduque; Marcopper Mining Corporation, 1999-2000.
23. Stability Analysis of Upper Makulapnit Rockfill Dam, Sta. Cruz, Marinduque; Marcopper Mining Corp./Placer Dome Technical Services, Inc. (Canada), May 2000.

24. Geotechnical Analysis and Stability Risk Assessment of Maguila-guila Rockfill Dam, Sta. Cruz, Marinduque; Marcopper Mining Corp./Placer Dome Technical Services, Inc. (Canada), May 2000 to September 2000.
25. Geotechnical Analysis and Stability Risk Assessment of Bol River Rockfill Dam, Sta. Cruz, Marinduque; Marcopper Mining Corp./Placer Dome Technical Services, Inc. (Canada), May 2000 to September 2000.
26. Construction of Rock Bolts and Crib Walls to Stabilize Rock Slopes, Palmera Homes Housing Developments, Taytay/Cainta/San Mateo, Rizal; Crown Asia Properties, Inc., April, 2000 to August 2000.
27. Borehole Geotechnical Testing, Logging and Stability Analysis of Tailings Dike, Masbate Gold Mine Project, Aroroy, Masbate: *BASE METALS MINERAL RESOURCES CORP/PHILIPPINES GOLD PROCESSING & REFINING CORP.*, June, 1997.
28. Borehole Geotechnical Testing, Logging and Stability Analysis of Tailings Dike, Masara Gold Mine Project, Davao del Norte: *BASE METALS MINERAL RESOURCES CORP/PHILIPPINES GOLD PROCESSING & REFINING CORP.*, March, 1997.
29. Geotechnical Subsurface Investigation Drilling Test Pitting and Sampling. Tañong Plant Project., Tañong, Marikina City: *J & P COATS MANILA BAY SPINNING MILLS CORP.*, April, 1997.
30. Geotechnical Drilling & Cavity Detection for Proposed Multi-Storey Condotel Towers Project, Mactan, Cebu: *GOLDLAND PHILIPPINES*, March, 1997.
31. Geotechnical Drilling & Foundation Investigation for Proposed Multi-Storey Building, EDSA Towers Project, Mandaluyong City : *GOLDLAND PHILS.*, March, 1997.
32. Geotechnical Investigation and Remedial Design and Application Collapsed Rock Wall. San Antonio Village, Makati City: *PRIMETOWN PROPERTY GROUP, INC.*, January, 1997.
33. Basement Rock Walls Stabilization, Meditel Project., Madaluyong City : *PRIMETOWN PROPERTY GROUP, INC.*, January, 1997.
34. Cavity Detection Test for Proposed Hotel Building, Wayne's Inn Hotel Project, Mactan, Cebu: *TABUNON REALTY CO., INC.*, March, 1997.
35. Rock Mechanics Design of Tailings Waste Tunnel, Marinduque, Philippines: *PLACER DOME TECHNICAL SERVICES, (PHILS.), INC.*, November, 1996 to February, 1997.
36. Earthworks Testing and Plate Load Tests, Quezon Power Plant Project, Mauban, Quezon: *BECHTEL OVERSEAS CORPORATION*, 1997.
37. Field Density Testing Dam Stability and Analysis, Sipalay, Negros, Occidental: *MARICALUM MINING CORP.*, 1996.

38. Field Density Tests, Compaction for Airstrip and Gold Leach Pad Area, Sipalay Negros, Occidental: *MARICALUM MINING CORP.*, 1996
39. Field Density Tests, Compaction for Airstrip and Gold Leach Pad Area, Hinobaan, Negros Occidental: *MARICALUM MINING CORP.* 1995-1996.
40. Exploration Drilling to Estimate Limestone Reserve, Bolinao, Pangasinan: *AIC (TAN YU) GROUP OF COMPANIES*, 1994-1995.
41. Exploration Drilling to Estimate Limestone Reserves, Teresa, Rizal: *SOLID CEMENT CO., PHIMA GROUP*, 1989.
42. Geotechnical Study for Open Pit Mine Design, Didipio Mine Project, Nueva Vizcaya, Philippines: *CLIMAX MINING LIMITED (AUSTRALIA)*, 1992-1993.
43. Geotechnical Investigation for Block Caving Mine Design, Didipio Mine Project, Nueva Vizcaya, Philippines: *ARIMCO MINING CORP., (AUSTRALIA)*, 1992-1993.
44. Hydrogeological and Surface Hydrological Studies, Didipio Mine Project: *N.V. PHILS., CLIMAX MINING LIMITED (AUSTRALIA)*, 1992-1993.
45. Underground Rock Mechanics Analysis and Design for Block Caving a Gold/Copper Mine, Benguet, Philippines: *PHILEX MINING CORP.*, 1990-1992.
46. Geotechnical Study for Slope Stabilization Re the 16 July 1990 Earthquake, Benguet, Philippines: *PHILEX MINING CORP.*, 1990-1991.
47. Foundation and Slope Stability Analysis, Grand Antamok Project Gold Millsite, Benguet, Philippines: *BENGUET CORP.*, 1991.
48. Slope Stability Analysis at the Cable Belt Conveyor Tunnel, Benguet, Philippines: *PHILEX MINING CORP.*, 1990.
49. Slope Stability and Rock Mechanics Investigation, Bua-Kelly Mine: *BENGUET, PHILS.*, 1989-1990.
50. Engineering Geological and Georesistivity Surveys to Evaluate and Stabilize the Amacan Open Pit Mine, Mindanao, Philippines: *NORTH DAVAO MINING CORP.*, 1988.
51. Engineering Geological and Geotechnical Investigation to Redesign and Stabilize the Cansibit Open Pit Mine Slope, Negros Occ., Philippines: *MARICALUM MINING AND INDUSTRIAL CORP. AND MARUBENI CORP.*, 1987-1991.
52. Rock Slope Engineering Analysis of Tuffaceous Sedimentary Beds, Ayala Heights, Quezon City, Philippines: *MAKATI DEVELOPMENT CORP.*, 1988.
53. Rock and Soil Foundation Analysis for the San Antonio Open Pit Mill Complex, Marinduque, Philippines: *MARCOPPER MINING CORP.*, 1988.

54. Design of Geotechnical Remedial Measures for Stabilizing the Amacan Open Pit Mine, Mindanao, Philippines: *NORTH DAVAO MINING CORP.*, 1985.
55. Rock Mechanics Investigation of the Gold Fields Tirad Orebody, Benguet, Phils. : *GOLD FIELDS ASIA LTD., (AUSTRALIA)*, 1984.
56. Geotechnical Investigation of Tunnel Overbreaks at the Magat River Dam Diversion Tunnels, Isabela, Philippines: *HYDRO RESOURCES CONTRACTORS CORP.*, 1981.
57. Engineering Geological Investigation of Rockslides at the Inlet Channel of the Magat Dam, Isabela: *HYDRO RESOURCES CONTRACTORS CORP.*, 1981.
58. Geotechnical Mapping and Structural Studies to Design the Hinobaan Open Pit Mine, Negros Occ., Phils.: *LEPANTO MINING CO.*, 1980-1981.

ONGOING & COMPLETED PROJECTS in the NEW MILLENIUM

Geotechnical Engineering Expert/Engineering Geologist/Project Director for the Following On-going and Recently Completed Projects:

1. Geomechanics laboratory testing of the Tailings Storage Facility, Gold Processing Plant, Aroroy, Masbate, PHILIPPINE GOLD, INC., January 2008 – Ongoing.
2. Subsurface geotechnical foundation investigation, field & geomechanics laboratory testing, and slope stability analysis of the hydro structures, Panigan, Tamugan & Suawan Hydroelectric Power Plant, Davao City, HEDCOR, INC. – October 2007 – July 2008.
3. Geotechnical foundation investigation, field & geomechanics laboratory testing, Gold Processing Plant of the Tailings Storage Facility, Aroroy, Masbate, PHILIPPINE GOLD, INC., August 2007.
4. Geotechnical foundation investigation, field & geomechanics laboratory testing, Gold Processing Plant, Aroroy, Masbate, PHILIPPINE GOLD, INC., August 2007.
5. Geotechnical investigation, field and geomechanics laboratory testing, Tamugan & Panigan Hydroelectric Plants, Davao, HEDCOR, INC., June 2007.
6. Geotechnical investigation, field & geomechanics laboratory testing, A Brown Housing Development, Tanay, Rizal, A BROWN COMPANY, INC., June 2007 – October 2007.
7. Peer review of Feasibility Study of tailings storage facility, Didipio Mine Storage Facility, Nueva Vizcaya, Quirino, AUSTRALASIAN PHILS. MINING, INC., February 2007.
8. Geotechnical investigation, field and geomechanics laboratory testing; landslide and seismic hazard risk assessment of the mine expansion area, Surigao del Norte, TAGANITO MINING CORP., September 2006 – December 2006.
9. Geotechnical engineering consultancy services: slope stability assessment and seismic risk evaluation of the proposed condominium site, Kawayan Cove, Nasugbu, Batangas, EDGE PROPERTIES DEVELOPMENT CORP., August 2006 – September 2006.
10. Geotechnical investigation, field and geomechanics laboratory testing; landslide and seismic hazard risk assessment of the mine expansion area, Surigao del Norte, TAGANITO MINING CORP., April 2006 – August 2006.
11. Geotechnical / soil investigation, field and geomechanics laboratory testing and test pitting for the proposed power plant site, Tamugan & Suawan Hydroelectric Plants, Davao, HEDCOR INC., March 2006 – July 2006.

12. Geotechnical investigation; engineering geological mapping; slope stability analysis; drilling; sampling; field & geomechanics laboratory testing; engineering Design for technical Mitigation measures, Tiwil Geothermal Power Plant, Tiwi, Albay, UNOCAL PHILIPPINES, Nov. 2005 – August 2006.
13. Annual assessment of the stability of three Philex Mines tailings dam, Padcal, Benguet, PHILEX MINING CORP., June 2002 - Ongoing.
14. Geotechnical investigation, design and construction of a 25m x 500m earthfill dam, Itbayat Irrigation Dam: Phases 1, 2, 3, 4 and 5 , Itbayat, Batanes, DEPARTMENT OF PUBLIC WORKS & HIGHWAYS, March 2004 - Ongoing.