Reducing the Environmental Impact Oil & Gas Field Access Roads:

Creation and Long term Monitoring of New Technology to Lower Footprint in Desert Ecosystems

Public Executive Summary

The Research Partnership to Secure Energy of America (RPSEA) Unconventional Oil & Gas Development (Environmental Issues) is funding a new project by Texas A&M University to construct and then perform demonstrations of low impact O&G lease roads designed to reduce the environmental impact of field development in sensitive new desert ecosystems.

The site will be located at the newly established University Desert Test Center http://www.pecosrtc.org/ near Pecos Texas on the edge of the Chihuahua desert.

The new A&M Research project will test **three new types** of low impact roads **plus one comparison standard gravel lease road**) will constructed. The roads will be instrumented for remote measurement, and then evaluate them for ability to withstand both normal and heavy truck traffic over intermittent periods through a complete calendar year. Part of the heavy traffic will consist of moving two platform modules of 20,000 lbs each built for modular drill site pads (Anadarko Petroleum Company's Gas Hydrates Project 2003) which are stored that the test site in preparation for testing (see Figure 1.)

A fifth type of low impact road (a "**disappearing road")** will be incorporated into the test site as part of a nationwide competition currently being conducted by the Texas A&M Petroleum Engineering Department.

This GPRI joint venture project is expected to be part of a University-Industry-Government partnership to perform long term development and environmental monitoring of low impact oil and gas drilling technology developed to reduce to footprint of oil and gas operations in sensitive desert like terrain.

After the low impact road field test is completed and after a suitable time the roads will be removed and remediation measures undertaken to restore the desert floor. After preliminary remediation the final performance and cost effective ranking of the roads will be performed by project managers, sponsors and consultants. Widespread descriptions about the project, briefings, including public sector, industry, environmental groups and government agencies will be invited to tour the sites at regular intervals during the term of the project.

A continuing program is expected to continue at the **Low Impact Desert Test** Site subject to future funding. Sponsors of the project include O&G operators (through the Global Petroleum Research Institute, GPRI), government (Texas General Land Office and Texas Railroad Commission) and other key stakeholder groups.

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