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"PRODUCTION OF MILD GASIFICATION CO-PRODUCTS" PROJECT

TECHNICAL PROGRESS REPORT
Through September, 1993

October 31, 1993

Work performed Under Contract No. DE-AC21-91MC27240

For:
U.S. Department of Energy
Morgantown Energy Technology Center
Morgantown, West Virginia

By:
SGI Fuels, Inc.

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QUARTERLY TECHNICAL PROGRESS REPORT
SECOND QUARTER 1993

1.0 INTRODUCTION

This Quarterly Technical Progress Report for Contract DE-AC21-91MC27240 covers the period from July 1, 1993 to September 30, 1993.

2.0 COAL AND COPRODUCT PRODUCTION

The work of producing the coproduct samples and delivering the samples of each feedstock coal, the Coal Derived Liquid (CDL) and the simulated Process Derived Fuel (PDF) has been accomplished under Option: Item 2 of this contract. The feedstock coals were taken from four mines which are defined below. Table 1 on page 2, titled: Coals - Option: Item 2, depicts the history of the coals from the taking of samples at the mine to delivery of all samples to the designated laboratories for test, analysis and reporting.

2.1 Buckskin Mine Coal (Wyoming, Powder River Basin, Coal)

For this contract Buckskin Coal has been designated as the baseline for comparison purposes.

The feedstock coal sample and coproduct samples of Buckskin Coal have been delivered to the designated laboratories as shown in Table 1 on page 2.

2.2 Knife River Mine Lignite (Beulah Zap, North Dakota Lignite)

The feedstock coal sample and coproduct samples of Knife River Lignite have been delivered to the designated laboratories as shown in Table 1 on page 2.

2.3 Sarpy Creek Mine Coal (Montana Rosebud, Powder River Basin Coal)

The feedstock coal sample and coproduct samples of Sarpy Creek Coal have been delivered to the designated laboratories as shown in Table 1 on page 2.

Table 1

Coals--Option: Item 2

	Rec'd at SGI Dev.Ctr	Processed	1 To Commerical Lab		Report: Lab to SGIF	2 To ORNL		Report: ORNL to SGIF	3 To METC		Report: METC to SGIF	4 To NIOSH		Report: NIOSH to SGIF
			Amount	Date		Amount	Date		Amount	Date		Amount	Date	
Buckskin Feedstock PDF CDL					Oct 1,92									
	Aug 92	Sep 92	----	Nov 10,92	----	2 kg	May 28,93		100 g	Dec 92		----	----	
		Sep 92	----	Nov 10,92	----	2 kg	May 28,93		100 g	Dec 92		----	----	
		Sep 92	----	Nov 10,92	----	4 L	May 28,93		2 L	May 19,93		2 L	Nov 92	
Knife River Feedstock PDF CDL					Dec 23,92									
	Sep 92	Oct 92	----	Nov 11,92	----	2 kg	May 28,93		100 g	Dec 92		----	----	
		Oct 92	----	Nov 11,92	----	2 kg	May 28,93		100 g	Dec 92		----	----	
		Oct 92	----	Nov 11,92	----	4 L	May 28,93		2 L	Apr 12,93		500 ml	May 20,93	
Sarpy Creek Feedstock PDF CDL					Mar 3,93									
	Nov 92	Jan 93	----	Jan 25,93	----	2 kg	May 28,93		100 g	Dec 92		----	----	
		Jan 93	----	Jan 25,93	----	2 kg	May 28,93		100 g	Dec 92		----	----	
		Jan 93	----	Feb 1, 93	----	4 L	May 28,93		2 L	Apr 12,93		500 ml	May 20,93	
Usibelli Feedstock PDF CDL					Jun 30,93									
	Jan 93	Mar 93	----	Mar 93	----	2 kg	May 28,93		100 g	May 19,93		----	----	
		Mar 93	----	Mar 93	----	2 kg	May 28,93		100 g	May 19,93		----	----	
		Mar 93	----	Mar 93	----	4 L	May 28,93		2 L	May 19,93		500 ml	May 20,93	

Notes:

- 1 - Commercial Lab is Commercial Test and Engineering Co., Lombard, Illinois.
- 2 - ORNL is Oak Ridge National Laboratory, Tennessee.
- 3 - METC is Morgantown Technology Center, Morgantown, Ohio.
 - a) Test and analysis of solid Feedstock and simulated PDF at METC.
 - b) Test and analysis of CDL at CornSource American, Pasadena, Texas.
- 4 - NIOSH is National Institute of Safety and Health, Morgantown, West Virginia.

2.4 Usibelli Mine Coal (Alaska Coal)

The feedstock coal sample and coproduct samples of Usibelli Coal have been delivered to the designated laboratories as shown in Table 1 on page 2.

3.0 DESIGNATED LABORATORIES

The designated laboratories and the contractual elements to be tested by the laboratories follow:

Oak Ridge National Laboratory has been designated to perform testing and characterization of the coal sample, the CDL (liquid) sample and the simulated PDF (solid) sample. The report from ORNL is expected by the end of the Fiscal Year.

The Laboratory at Morgantown Technology Center has been designated to perform testing and characterization of the coal sample, the CDL (liquid) sample and the simulated PDF (solid) sample. The report from the METC Laboratory is expected by the end of the Fiscal Year.

National Institute of Safety and Health (NIOSH) at Morgantown has been designated to perform the mutagenicity tests of the CDL (liquid). The report from NIOSH is expected by the end of the Fiscal Year.

A commercial laboratory under contract to SGI has been designated to perform testing and characterization of the coal sample, the CDL (liquid) sample and the simulated PDF (solid) sample. The reports of the tests on the individual coals have all been received from the commercial laboratory and analytical reports have been received from the SGI Development Center.

4.0 TOPICAL REPORTS AND FINAL REPORT

The contractor activity remaining under this contract includes the amalgamation of the reports from all laboratories to generate a Topical Report on each coal; then, integrate the Topical Reports into the Final Report.

This report generation process awaits the test and analysis results to be reported from each of the designated laboratories.

5.0 CONTRACT MODIFICATION

Contract Modification 003 was signed by both parties on April 2, 1993. This modification extends the contract completion date until January 4, 1994.

The prenegotiated Option: Item 3 is still open and awaiting METC's decision to be exercised. This modification will add a Texas Lignite, a West Virginia Bituminous, and an Illinois Bituminous to the samples of the four coals that have been processed and delivered with their coproduct samples.

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