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August, 2001

P. C. S. Phosphates
Post Office Box 300
White Springs, Florida 32096
ATTN: Mr. Jeff Hackney
Maintenance Supervisor

**RE: Effectiveness of Cathodic Protection
Survey Underground Natural Gas System**

INTRODUCTION

The annual cathodic protection survey was conducted for P.C.S. Phosphates during the month of August, 2001. During this survey, P.C.S. Phosphates natural gas system was inspected for the effectiveness of cathodic protection, as applied. The cathodic protection system for P.C.S. Phosphates consists essentially of Galvomag Magnesium anodes placed in various locations throughout the natural gas system.

RESULTS AND ANALYSIS

A total of 6 readings were taken during this survey. As can be seen by the structure-to-soil potential measurements and the enclosed data sheet, all of the readings obtained were indicative of cathodic protection. A structure-to-soil potential of 850 millivolts or more negative is the basis used in this report to confirm cathodic protection.

RECOMMENDATIONS
P. C. S. Phosphates – White Springs
Underground Natural Gas System
August, 2001

The sacrificial anode arrangement designed to protect the coated and wrapped steel natural gas system is providing adequate current to afford cathodic protection to the steel distribution system. Structure-to-soil readings obtained from Cathodic Test Points and gas risers on the steel distribution system indicate complete cathodic protection. Two [2] Railroad casings were inspected during this survey. Carrier casing pipes were found not to be isolated from the natural gas piping.

The six inch steel gas pipe supplying the D.A.P. plant is heavily corroded. It is recommended that this exposed piping be cleaned, primed and painted to prevent further atmospheric corrosion.

At this time, the Natural Gas Distribution System for the P.C.S. Phosphates Suwannee River Chemical Plant complex is completely Cathodically Protected with no further action required. I trust the above information to be satisfactory and in sufficient detail, however, should you require additional information, please contact me.

Sincerely,

J. Scott Roberts
NACE C.P. Tester
Certification # 371

CATHODIC TEST POINTS

CATHODIC TEST POINTS
P.C.S. Phosphates – White Springs
Underground Natural Gas System
August, 2001

CTP - #1

[1] Red Anode Wire -1.694 MV
[1] Black Gas Pipeline Wire -0.862 MV

CTP - #2

[1] Red Anode Wire -1.284 MV
[1] Black [Tape] Casing Pipeline Wire -0.918 MV
[1] Black [No Tape] Gas Pipeline Wire -0.956 MV
Anode and Gas Line Wires Together -1.027 MV

CTP - #3

[1] Red Anode Wire -1.932 MV
[1] Black [Tape] Casing Pipeline Wire -1.012 MV
[1] Black [No Tape] Gas Pipeline Wire -1.101 MV
Anode and Gas Line Wires Together -1.154 MV

STRUCTURE-TO-SOIL POTENTIALS
GAS PIPE CASINGS

STRUCTURE-TO-SOIL POTENTIAL - GAS PIPE CASINGS
P.C.S. Phosphates – White Springs
Underground Natural Gas System
August, 2001

Railroad Casing @ CTP #3	-1.012
Scale House Drive Casing @ CTP #2	-0.918

STRUCTURE - TO - SOIL POTENTIAL DATA

STRUCTURE – TO – SOIL POTENTIAL DATA

P.C.S. Phosphates – White Springs

Underground Natural Gas System

August, 2001

Test Location	Energized Potentials Volts
Metering Station [6" Steel Line]	-0.922
Meter @ Dical Plant [2" Riser]	-0.850
D.A.P. Loading [6" Riser]	-0.942