Unconfined compressive strength (UCS) and pentrometer UCS approximations of core (4,309.5'-4,409') from the BP Exploration (Alaska) Inc. Milne Point G-1 well.

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Dr. John Reeder
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January 15, 2004

Dear Dr. Reeder:

Attached is the data we gathered last year on the core from Milne Point G1. Please file this in the state's permanent record for data collected on this core.

ConocoPhillips performed two sets of tests on the core from Mine Point G1. Both test methodologies where employed to estimate unconfined compressive strength (UCS). Unconfined compressive tests were attempted on 1" x 1.5" plugs cut from the core. All such attempts were unsuccessful because the core material disintegrated during the plug cutting process. As such, the UCS was estimated to be near zero psi. If the plugs had been cut successfully, we would have measure the strength of the plug with a point load testing apparatus. However this was not completed due to the friable nature of the core.

Additionally, a pentrometer was used to make indentations in the core. These indentations were then converted into UCS approximations with an internal correlation methodology. From the pentrometer UCS estimates ranged from 42 to 2120 psi. The average pentrometer UCS is 776 psi. Figure 1 and Table 1 detail the laboratory notes and plotted results from our Milne Pt. G1 core investigation.

If you have any questions about the data or the methodology's employed, please do not hesitate to contact me at any time.

Sincerely,

Eric R. Davis, P.E.
Completion Specialist

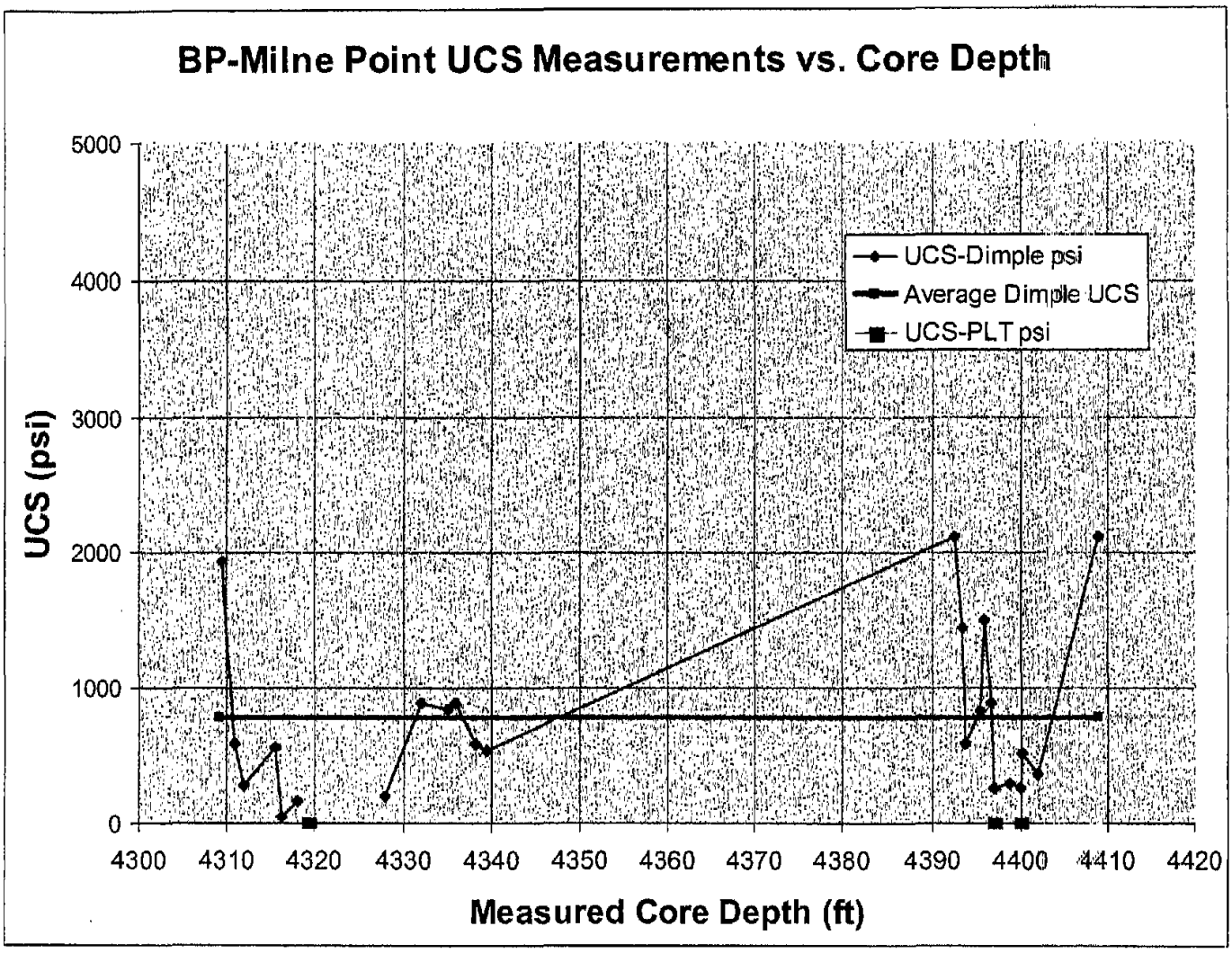

Figure 1: BP-Milne Pt G1 UCS Measurements vs. Core Depth

BP-Milne Point G1:
Dimple Based
Unconfined Compressive Strength Data

Well	Core Depth md (ft)	Desc.	Point Load Tester Notes	UCS-Dimple psi	UCS-PLT psi
G1 Milne Pt.	4309.5	sh		1935	
G1 Milne Pt.	4310.9	ss		582	
G1 Milne Pt.	4312	ss		279	
G1 Milne Pt.	4315.5	ss		556	
G1 Milne Pt.	4316.2	ss		42	
G1 Milne Pt.	4318	ss		160	
G1 Milne Pt.	4319.3	ss	3 attempts;No Plug		0
G1 Milne Pt.	4328	ss		194	
G1 Milne Pt.	4332	ss		883	
G1 Milne Pt.	4335	ss		843	
G1 Milne Pt.	4336	ss		883	
G1 Milne Pt.	4338.2	ss		582	
G1 Milne Pt.	4339.6	ss		532	
G1 Milne Pt.	4392.5	sh		2120	
G1 Milne Pt.	4393.5	ss		1441	
G1 Milne Pt.	4393.8	ss		582	
G1 Milne Pt.	4395.5	ss		833	
G1 Milne Pt.	4396	sh		1509	
G1 Milne Pt.	4396.6	ss		883	
G1 Milne Pt.	4397	ss	2 attempts;No-Plug	260	0
G1 Milne Pt.	4398.9	ss		291	
G1 Milne Pt.	4400	ss	2 attempts;No-Plug	254	0
G1 Milne Pt.	4400.3	ss		513	
G1 Milne Pt.	4402	ss		357	
G1 Milne Pt.	4409	sh		2120	

ss = sandstone
ssl = sandstone with visible layering
sh = shale
co3 = ss +CO3

4309	Average Dimple UCS	776.4166667 psi
4409		776.4166667 psi

Table 1: BP-Milne Pt G1 Laboratory Measurements