The Mineral Lab, Inc.
2700 Youngfield Suite 105
Lakewood, CO 80215
(303) 232-8708

December 23, 1996
Lab no. 960591

USGS Anistrat CZ-1553

Mr. John C. Webb
119 South Buchanan Court
Louisville, Colorado 80027

Dear Mr. Webb:

Enclosed are the graphical representations of the x-ray diffraction (XRD) raw data for your sample, "6907-08" which you requested. Also enclosed are a copy of our current brochure and the signed acknowledgment of our "New Client Contract."

A representative portion of the sample was ground to approximately -400 mesh in a steel swing mill, mounted in a well-type sample holder and then scanned with the diffractometer over the range, 3-61° 2θ using Cu-Kα radiation. A representative portion of the "clay" fraction was mixed with distilled water, drawn onto a filter and then the filtrate rolled onto a glass disk forming an oriented mount. This oriented mount was scanned over the range, 2-40° 2θ. This mount was treated with glycol and rescanned over the range, 2-20° 2θ. Another oriented mount was prepared from the "clay" fraction, heat treated at 300°C for ~one hour and then scanned over the range, 2-20° 2θ. Graphical representations of each of these four XRD scans are enclosed. Scan parameters are noted under the lower, right hand edge of each scan.

Thank you for the opportunity to be of service.

Sincerely,

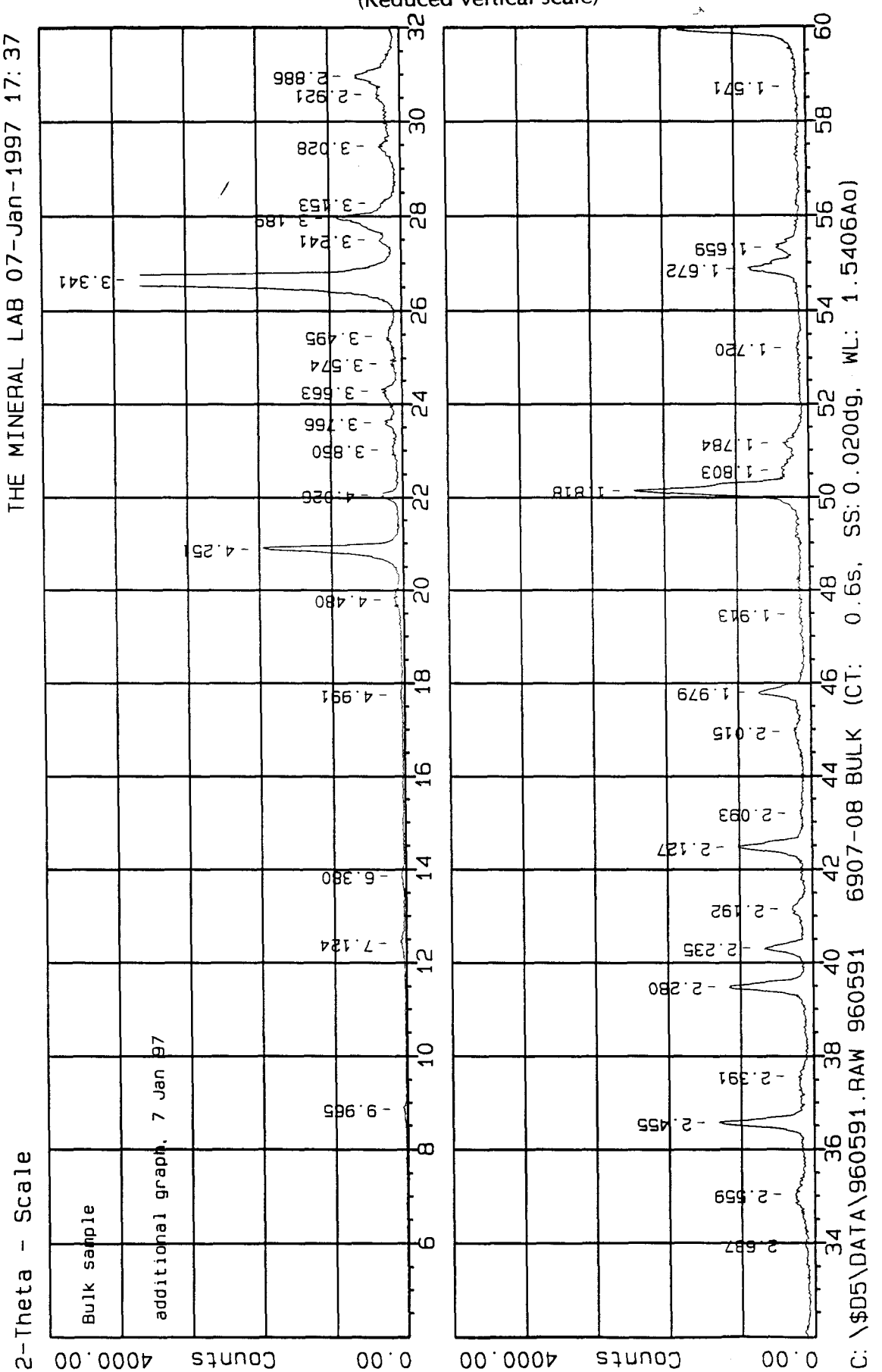
Peggy Dalheim

Peggy Dalheim

PD/ka

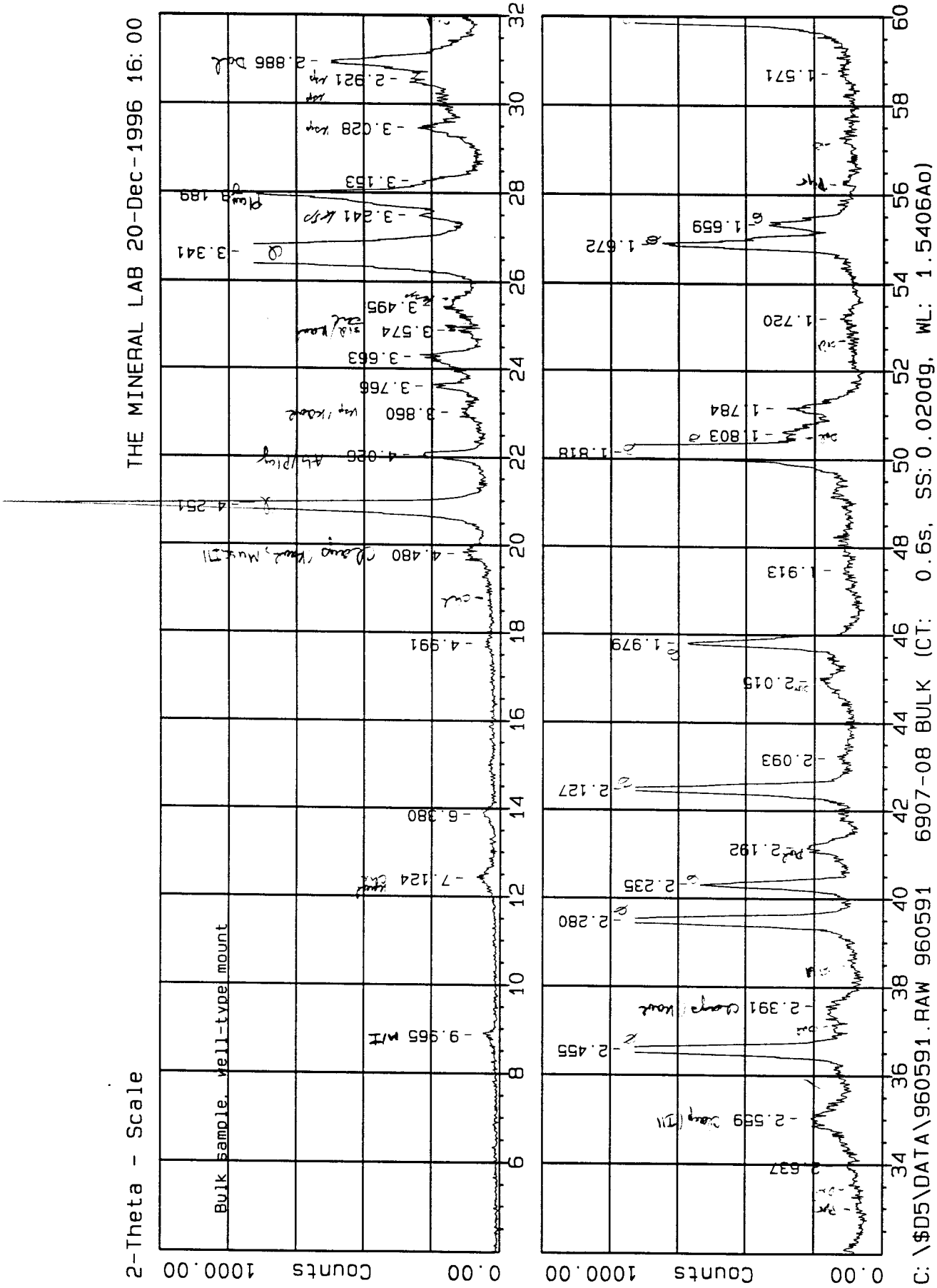
Petroleum Inc., No. 1 Nisselius, 6907-08', Whole Rock X-ray Diffractogram

(Reduced vertical scale)



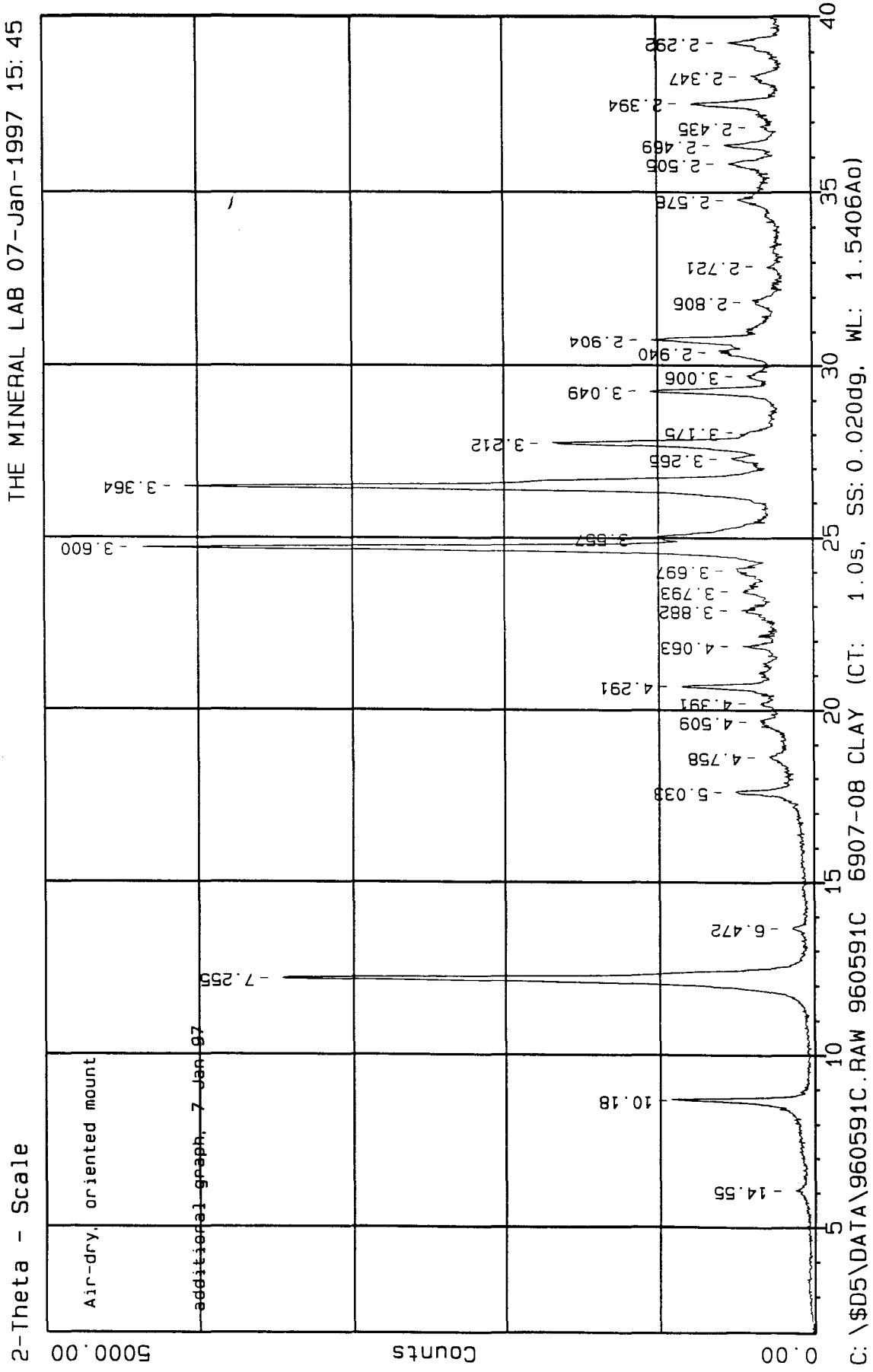
Petroleum Inc., No. 1 Nisselius, 6907-08', Whole Rock X-ray Diffractogram

(Expanded vertical scale)

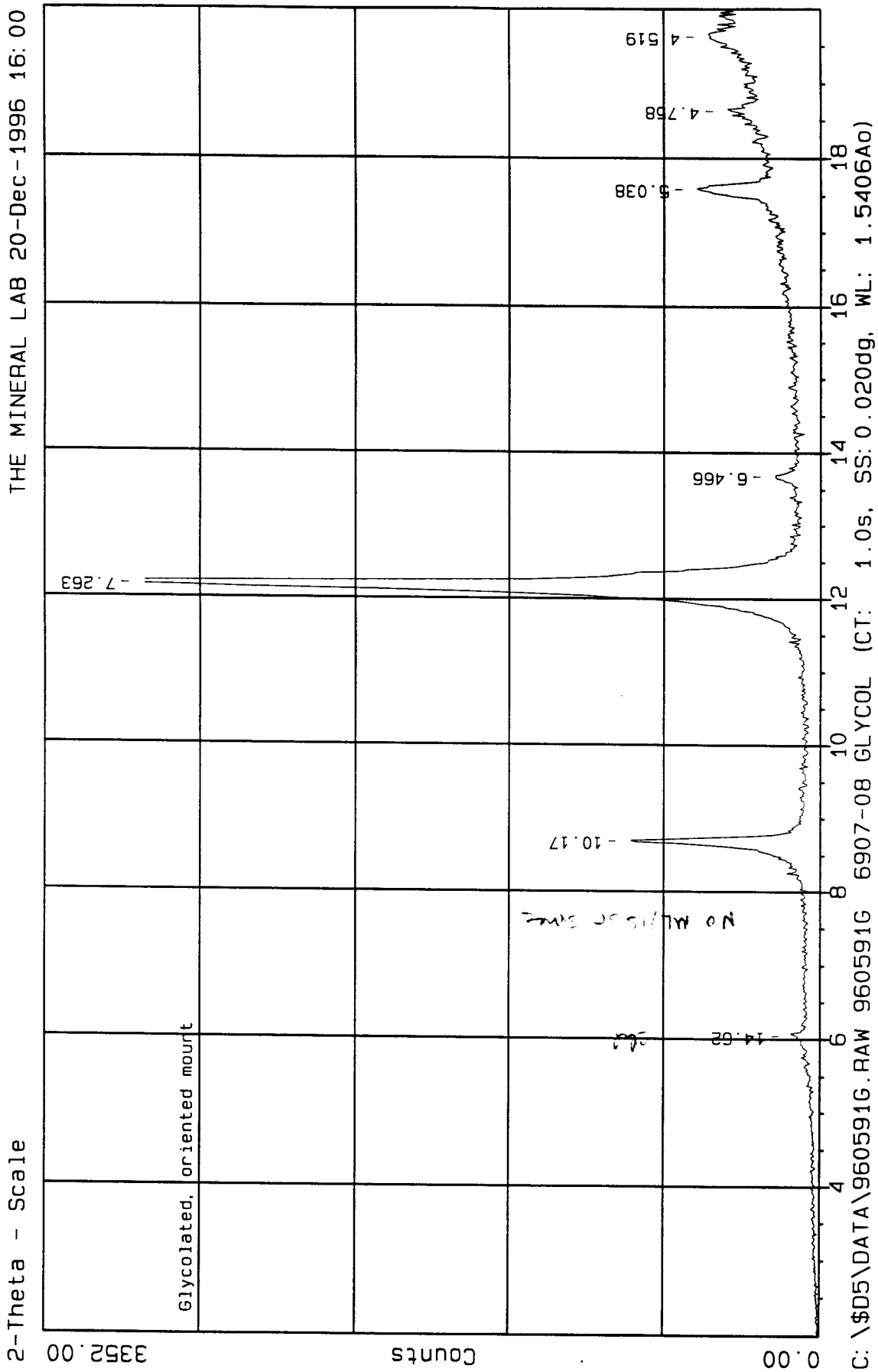
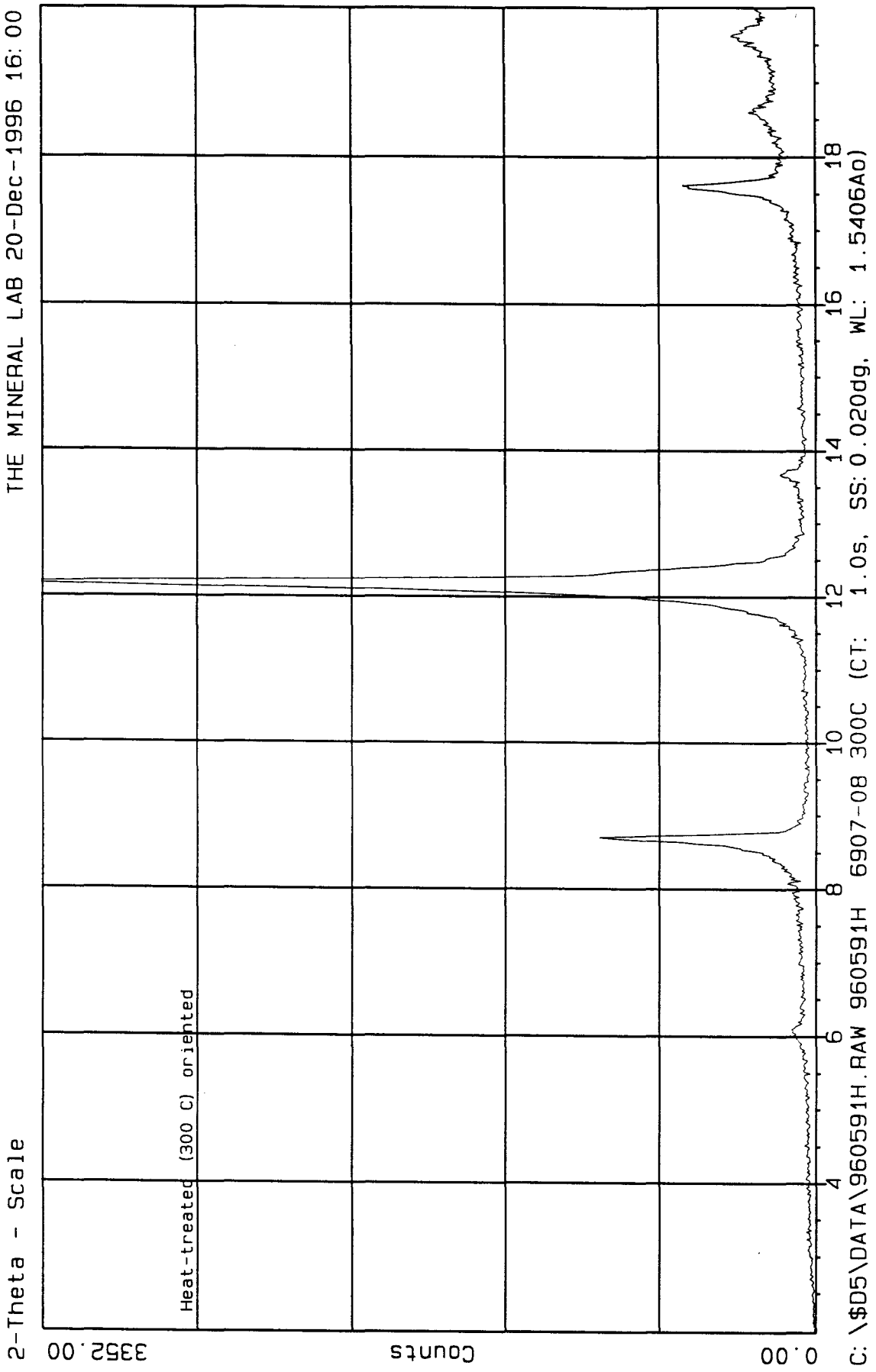


Petroleum Inc., No. 1 Nisselius, 6907-08', Clay Fraction X-ray Diffractogram

(Air dry sample)



Petroleum Inc., No. 1 Nisselius, 6907-08', Clay Fraction X-ray Diffractogram
(Glycolated sample)



Petroleum Inc., No. 1 Nisselius, 6907-08', Clay Fraction X-ray Diffractogram
(Heat treated, 300 degrees C sample)