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ANALYSIS OF BLOOD SAMPLES FOR PERFLUOROOCTANOATE
(Job No. 831-1046, PRAL Nos. 83-4848-4849; Notebook Nos. E27433,
E29324, E29325)

As requested in your letter of 9/14/83, the two blood samples submitted from Tralee Park (F&FP) employees have been analyzed for perfluorooctanoate (C₈) by the usual gas chromatographic method ES-567. Results and sample identification are given in the attached table.

Sharron Laas

SL:kab
Attach.

Key Words

Perfluorooctanoate
GC
Blood Analysis

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USEPA 10528

TABLE I

CONCENTRATION OF PERFLUOROOCTANOATE IN BLOOD (a)

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<u>Sample</u>				<u>GC Analysis</u>		(b)
<u>PRAL No.</u>	<u>Date Sampled</u>	<u>P.F.No.</u>	<u>Name</u>	<u>Date Analyzed</u>	<u>[C₈], μg F/g blood</u>	
83-4848	-	-		9/16/83	0.17	
83-4849	-	-		9/16/83	0.15	

(a) Analysis as described in Lab Method ES-567 ("Determination of Perfluorooctanoic Acid in Blood, Gas Chromatographic Method", S. Stafford, 4/3/81), using the packed column GC analysis with perfluoro-n-octanoic acid as calibration standard.

(b) Although the analysis is specifically for perfluorooctanoate (acid or salts), concentrations are given in ppm fluorine for comparison with the results of total organic fluorine analyses. ($\text{ppm F} = 0.688 \times \text{ppm perfluorooctanoic acid}$) Estimated uncertainty is $\pm 10\%$ relative standard deviation. The lower limit for quantitation is $0.007 \mu\text{gF/g}$. The detection limit is $\sim 0.004 \mu\text{gF/g}$, but concentrations in that range cannot be well quantitated and are reported as < 0.007 . None detected (n.d.) is reported for samples with $[\text{C}_8] \lesssim 0.004 \text{ ppm}$, which cannot be distinguished from reagent background.

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