STATOIL

POINT COUNTING TEST

WELL. 31/3-1

DATE: AUGUST 1984

GECO
GEOPHYSICAL COMPANY
OF NORWAY A-S

SHS1
P5.12-01
31/3-1

GECO

STATOIL

POINT COUNTING TEST

WELL. 31/3-1

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COMMENTS

GENERAL: As requested by Kate Gibbons, Statoil, GECO point counted 15 thin rock sections stained for potash feldspars from well 31/3-1. All sections had been previously counted at Statoil, Forus and forwarded to GECO with Statoil's results.
The project was meant to be an exercise in point counting with intentions of comparing data from the two laboratories.

EQUIPMENT: GECO used a Leitz Laborluab 12 POL binocular microscope equipped with a Swift model F electronic point counter and automatic mechanical stage.

PROCEDURE: The results have been presented in tabular form for each sample as percentages of 200 points. Horizontal interval used was 0.6 mm while the vertical interval used was 1.0 mm.
Thirteen different catagories have been registered as follows:

Quartz
Metamorphic rock fragments
Potassium feldspars
Plagioclase
Biotite
Muscovite
Kaolinite
Organic material
Unspecified matrix
Carbonate
Pyrite
Pore space
Other (collophane)

CONCLUSIONS:

a) Thin section porosity values as determined at GECO were in general much lower than values obtained at Statoil. This may be explained by differences in counting/registering microporosity.

b) In several cases, GECO found it rather time consuming and difficult to distinguish between

   i) muscovite, biotite and kaolinite
   ii) pyrite and organic material

c) It was often difficult to determine the edge of the potassium feldspar grains because of etching.

d) Heavy minerals were observed in some sections without being registered in the analysis.

POINT COUNTING RESULTS

WELL: 31/3-1

(percentages of 200 points)

DEPTH	LAB[1]	QTZ	MET. R.F.	K-SP	PLAG.	BIO-TITE	MUSC.	KAO.	ORG. MAT.	UNSP. MTR.	CARB.	PYR.	T.S. POR.	OTHER
1366.75	S	26.5	0	13	3	1	3.5	5.5	1	3.5	0	3	39.5	-
	G	28.0	3.0	13.5	3.5	1.5	4	7	0.5	6	0	2	31.0	0
1376.75	S	28.5	0	9	3	2.5	1.5	22.5	0	3	0.5	4	25.5	-
	G	29.0	1	10.5	2.5	3	2	19.5	1	3.5	0	4.5	23.5	0
1388.00	S	27.0	2	13.5	6	2	0.5	11.5	0	7	0	5.5	25.0	-
	G	28.5	2.5	14.5	4.5	1	1.5	13.5	0.5	6.5	0	5	23	0
1391.50	S	31.5	1.5	12	4	1	2.5	4	Tr	6	35	1.5	0.5	-
	G	29.5	2.5	14.5	4.5	0	1.5	3.5	0.5	4	37	2.5	0	0
1401.25	S	25	2.5	12	4.5	1.5	4	15	2.5	2	1	3.5	26	-
	G	24	3.5	11.5	6	3	3.5	20	1	3	0.5	3	21	0
1409.75	S	30.5	7.5	6	3.5	1	1	4	0.5	5	0	25	16	-
	G	31.5	5	7.5	4	0	0.5	6	1	4	0	26	14.5	0
1414.75	S	27	4.5	11	3.5	1.5	1.5	7	0.5	5	0	2	36.5	-
	G	28	4.5	11.5	5	0.5	2	10	0	5.5	0	1.5	31.5	0
1426.75	S	19.5	1.5	16	3.5	1	5	23	9.5	11.5	0.5	4	4.5	-
	G	23	1	14.5	2	1	4.5	22	10	13	-	6	3	0

1. S = STATOIL, G = GECO

GECO

POINT COUNTING RESULTS WELL: 31/3-1

(percentages of 200 points)

DEPTH	LAB[1]	QTZ	MET. R.F.	K-SP	PLAG.	BIO-TITE	MUSC.	KAO.	ORG. MAT.	UNSP. MTR.	CARB.	PYR.	T.S. POR.	OTHER
1434.50	S	19.5	0.5	11.5	5.5	5.5	4.5	27	8	3	0.5	5	10	-
	G	22	1.5	12.5	4	4	3	26	6.5	8	-	6	6.5	0
1441.50	S	19	28	8	2	0	Tr	5.5	0.5	10.5	Tr	2	24.5	-
	G	21.5	26.5	7.5	2	-	-	8.5	0.5	13.5	-	2	18	0
1448.25	S	25.5	13	13.5	2.5	1.5	0.5	14	0.5	7	0	1.5	20.5	-
	G	27.5	12	13	1.5	1	0.5	16.5	0	9.5	0	2	16.5	0
1452.75	S	34	4.5	14.5	3.5	0.5	0.5	15	2	2	0	2	21.5	-
	G	35	4.5	13.5	4.5	0	0.5	15	1.5	5	0	2.5	19	0
1459.25	S	21.5	0	13.5	4.5	1.5	1	23.5	5.5	5.5	0.5	6	17	-
	G	23	1	12.5	3.5	1.5	1.5	26	6.5	6	1	6	11.5	0
1462.25	S	22	0.5	16	2	1.5	4.5	21.5	7	3.5	0.5	5	15.5	-
	G	24	1	15	3	2	3.5	23	5.5	6	0	5.5	11	0.5[2]
1465.50	S	28.5	0.5	15.5	2	2	2	21	5	3.5	0	4	15.5	-
	G	29.5	0.5	12.5	3	2.5	1.5	22.5	4.5	5	0	5.5	13	0

1. S = STATOIL, G = GECO
2. Collophane

GECO