

Plot Name: KGS_Phase2 results_08-13

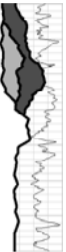
Plot File: KGS_Phase2 results_08-13.PLT

Well File: Piceance_Williams PA 424-34.las

Time: 09:24 AM

Date: Thu, Aug 21, 2008

Log analyst:



Company: PA 424-34

File: Piceance_Williams PA 424-34.las

Field: PARACHUTE

County: GARFIELD

State: CO

Country:

Location:

MRL

EWST

WSSST

County: GARFIELD

Field: PARACHUTE

File: Piceance_Williams PA 424-34.las

Well: PA 424-34

Location: PA 424-34

Field: PARACHUTE

County: GARFIELD

State: CO

Country:

Permanent datum

GROUND LEVEL

@

5136'

Elev.: KB: 5150.0

D.F: 5149

GL: 5136'

F

Log measured from

KB.

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Drig measured from

KELLY BUSHING

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Date

18-JUL-2006

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Run No.

ONE

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Depth Driller

7044'

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Depth Logger

7038

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Bottom Logged Interval

7028'

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Top Logged Interval

7028'

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Casing Driller

9.625 @ 1538'

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Casing Logger

1556'

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Bit Size

7.875

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Type Fluid in Hole

LSNDLCM

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Density

13

@

14

above perm datum

D.F: 5149

GL: 5136'

F

pH

9.50

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Source of Sample

MUD TANK

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Run @ Meas. Temp.

2.09 @ 76 F

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Run @ Meas. Temp.

1.52 @ 67

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Run @ Meas. Temp.

2.07 @ 69 F

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Source: Run

MEAS.

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Run @ BHT

@ 200

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Run @ BHT

@ 200

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Circulation Stopped

12 HOURS

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Time

200

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Max. Rec. Temp.

G.J.

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Equipment Location

M. MAZUREK

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Recorded By

W. DEES

@

14

above perm datum

D.F: 5149

GL: 5136'

F

Witnessed By

@

14

above perm datum

D.F: 5149

GL: 5136'

F

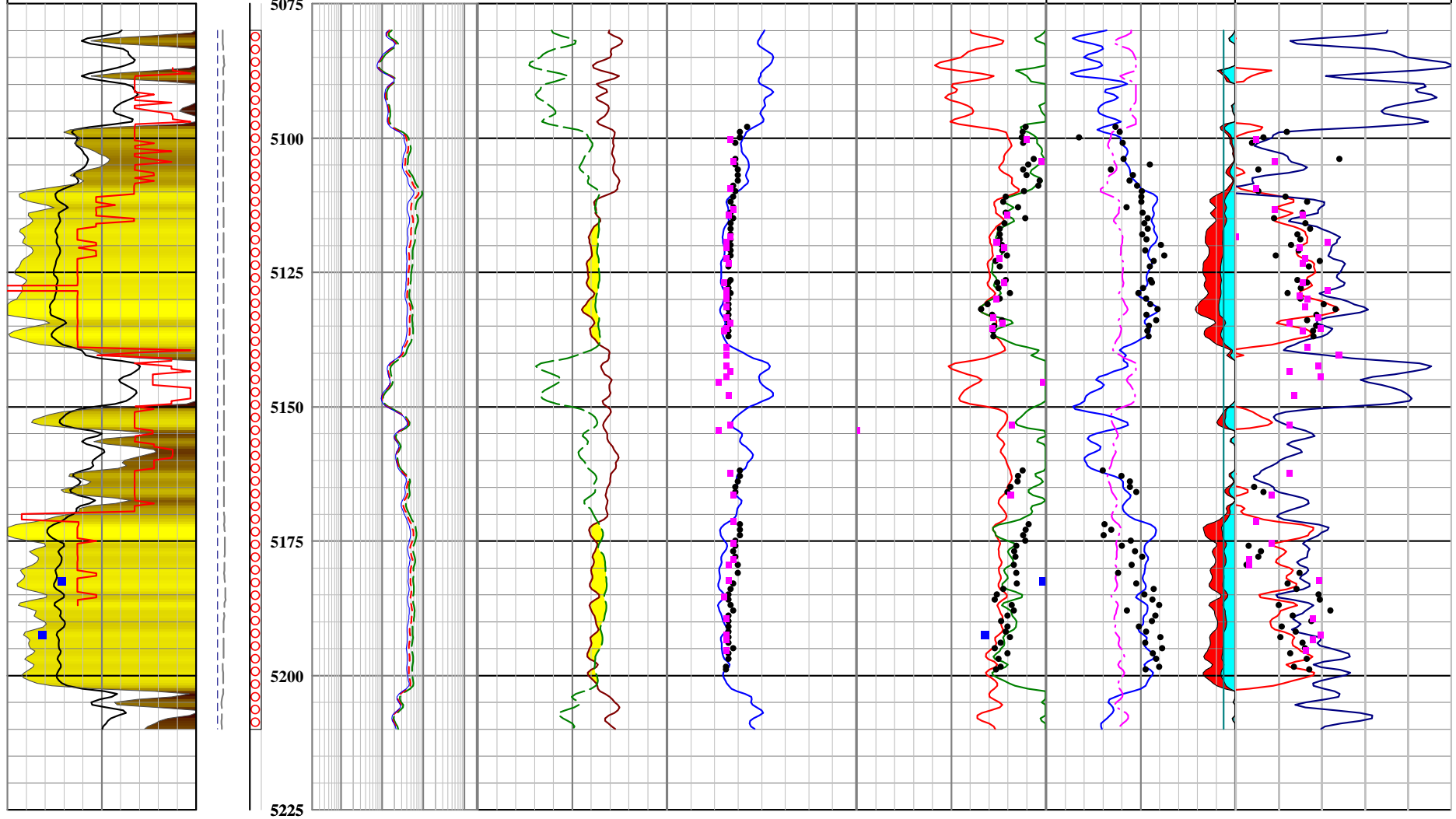
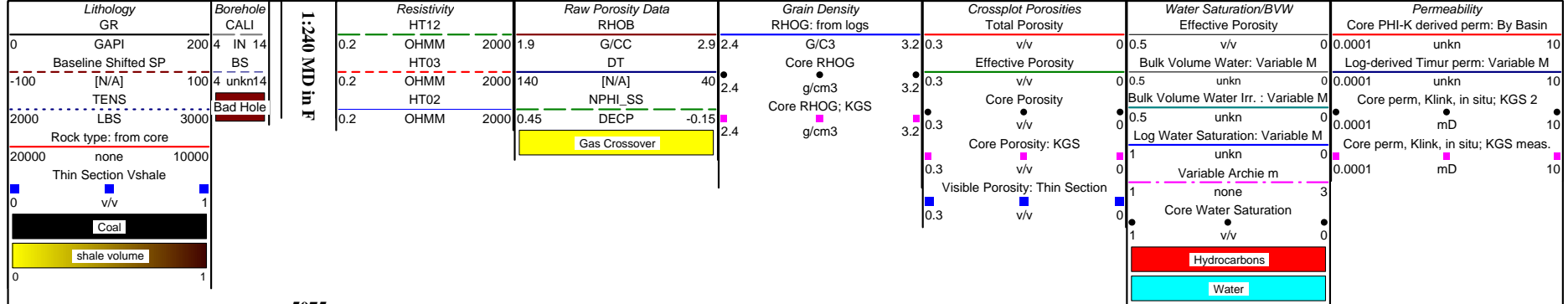
Disclaimer: Interpretations from electrical or other measurements in wellbores are opinions based upon inferences as to tool response in the underground formation. Neither Digital Formation nor The Discovery Group Inc. guarantee the accuracy or correctness of any interpretation made using the LESA for Windows software. Consequently, neither company shall be liable or responsible for any loss or damages incurred as a result.

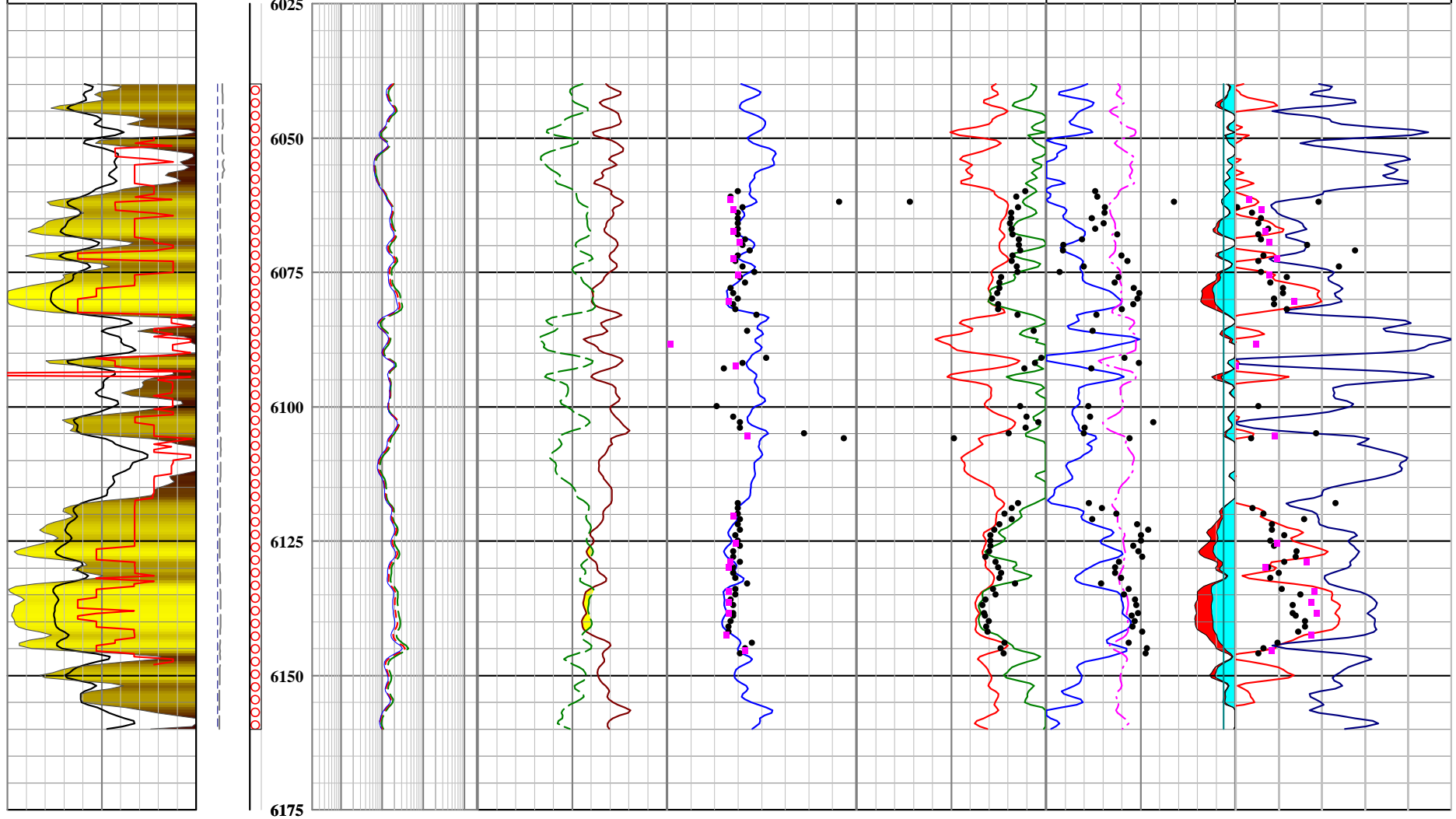
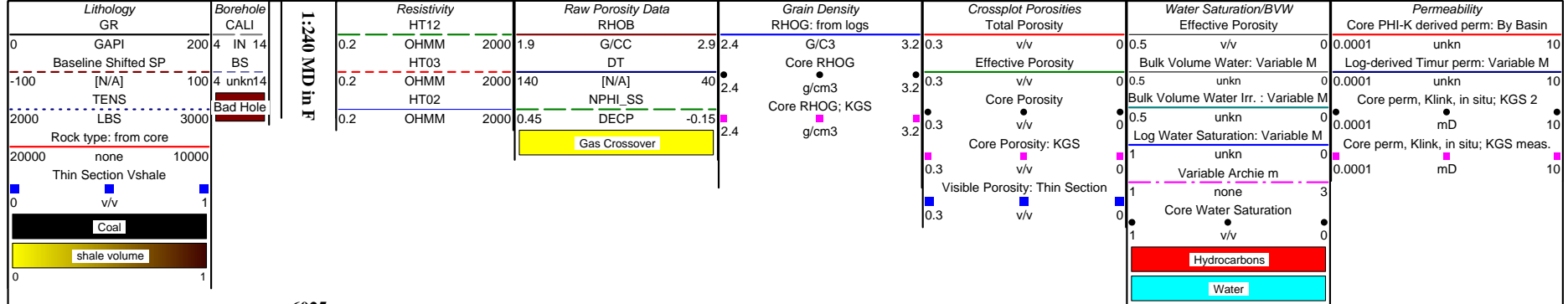
DIGITAL FORMATION

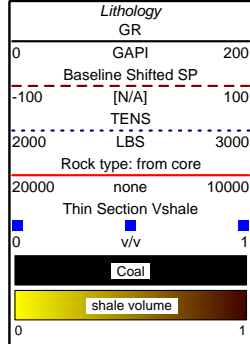
LESA for Windows 7.0

Lithology		Borehole		Resistivity		Raw Porosity Data		Grain Density		Crossplot Porosities		Water Saturation/BVW		Permeability	
GR	200	CALI	4 IN 14	HT12	2000	RHOB	2.9	RHOG: from logs	3.2	Total Porosity	0.3	Effective Porosity	0.5	Core PHI-K derived perm: By Basin	10
GAPI	100	BS	4 unkn14	OHMM	2000	G/CC	40	G/C3	3.2	Effective Porosity	0.3	Bulk Volume Water: Variable M	0.5	Log-derived Timur perm: Variable M	10
Baseline Shifted SP	100	BS	4 unkn14	HT03	2000	DT	40	Core RHOG	3.2	Core Porosity	0.3	Bulk Volume Water Irr.: Variable M	0.5	Core perm, Klink, in situ; KGS 2	10
TENS	3000	BS	4 unkn14	OHMM	2000	[N/A]	40	g/cm3	3.2	Core Porosity: KGS	0.3	Log Water Saturation: Variable M	0.5	Core perm, Klink, in situ; KGS meas.	10
LBS	3000	BS	4 unkn14	HT02	2000	NPHI_SS	-0.15	Core RHOG; KGS	3.2	Visible Porosity: Thin Section	0.3	Variable Archie m	1	Core perm, Klink, in situ; KGS meas.	10
Rock type: from core	10000	BS	4 unkn14	OHMM	2000	DECP	-0.15	g/cm3	3.2	Visible Porosity: Thin Section	0.3	Core Water Saturation	1	Core perm, Klink, in situ; KGS meas.	10
Thin Section Vshale	10000	BS	4 unkn14	OHMM	2000	DECP	-0.15	g/cm3	3.2	Visible Porosity: Thin Section	0.3	Core Water Saturation	1	Core perm, Klink, in situ; KGS meas.	10
v/v	1	BS	4 unkn14	OHMM	2000	DECP	-0.15	g/cm3	3.2	Visible Porosity: Thin Section	0.3	Core Water Saturation	1	Core perm, Klink, in situ; KGS meas.	10
Coal	1	BS	4 unkn14	OHMM	2000	DECP	-0.15	g/cm3	3.2	Visible Porosity: Thin Section	0.3	Core Water Saturation	1	Core perm, Klink, in situ; KGS meas.	10
shale volume	1	BS	4 unkn14	OHMM	2000	DECP	-0.15	g/cm3	3.2	Visible Porosity: Thin Section	0.3	Core Water Saturation	1	Core perm, Klink, in situ; KGS meas.	10
	1	BS	4 unkn14	OHMM	2000	DECP	-0.15	g/cm3	3.2	Visible Porosity: Thin Section	0.3	Core Water Saturation	1	Core perm, Klink, in situ; KGS meas.	10

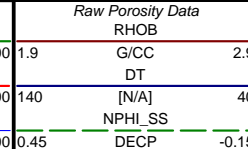
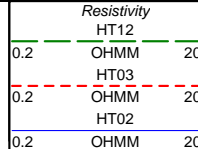
Well log plot showing various data tracks against depth from 4525 to 4750 feet. The tracks include Lithology (GR, GAPI, TENS, LBS), Resistivity (HT12, OHMM, HT03, HT02), Raw Porosity Data (RHOB, G/CC, DT, NPHI_SS, DECP), Grain Density (RHOG, G/C3, Core RHOG, Core RHOG; KGS), Crossplot Porosities (Total Porosity, Effective Porosity, Core Porosity, Core Porosity: KGS, Visible Porosity: Thin Section), Water Saturation/BVW (Effective Porosity, Bulk Volume Water: Variable M, Bulk Volume Water Irr.: Variable M, Log Water Saturation: Variable M, Variable Archie m, Core Water Saturation), and Permeability (Core PHI-K derived perm: By Basin, Log-derived Timur perm: Variable M, Core perm, Klink, in situ; KGS 2, Core perm, Klink, in situ; KGS meas.). A red line at 4545 feet is labeled 'KMv 01'. A yellow box at the bottom left indicates 'Gas Crossover'.







1:240 MD in F



Gas Crossover

