## **CRC LEME** T.H.D. Payenberg and M.R.W. Reilly, NCPGG, Adelaide University, February 2003 **Cooperative Research Center for** Landscape Environments St George LB06 - 0.0 m - 60.0 m and Mineral Exploration **TOTAL GAMMA** Sedimentary Structures 100 200 300 400 500 600 C G VC C M F VF C M F M Physical Biogenic Descriptions, Depositional Environments, etc. Dark-grey massive clay. Surface sample includes sub-rounded to rounded quartz pebbles and Ferruginous chips (V. Hard) up to 3 cm Brown silty clay Brown silty clays with MnO coatings Brown to orange sandy clay Channel complex Brown to orange clayey medium sand Sample Orange grey mottled sandy clay FeO 2 FeO Orange, grey, white mottled sandy clay with thin FeO Quaternary lenses FeO FeO FeO Cretaceous | Very hard nodules, rare well-rounded quartz FeO pebbles. Orange, purple-grey clay to silty clay with geothite mottling FeO FeO 3 FeO FeO FeO FeO FeO 12 Massive, pale-grey, silicified silt 5 Weathering profile Grey silicified silt Grey to brown silicified silt Rusty-brown silicified silt Pale silicified silt Massive, white coarsening-up fine to medium sand Crevasse or splay channel Sample Pale 22 Massive to faintly laminated sand with common rip-up clasts Pink Silty clay Pale to pink sand with common rip-up clasts Ø Silty clay with sandy streaks F<u>eO</u> Silty clay with silty laminae Massive, grey to white silty shale 9 Massive, light-grey to white clay plain, overbank, lake, prodelta 호 MnO dendrites on core Gradational contact 27 Massive fine silt Massive, white fine silt with some FeO stains Massive white clay Floodp 29 Laminated white fine silt 30 Missing core Floodplain, overbank, lake White fine sand Ø White, clean, leached medium silt 32 33 Massive to laminated, light-grey with orange banding, minor clay content, basal fine sand coarsening upward into medium sand 12 35 Ø Ø Very-fine silt to clay Interbedded with abundant very-fine to fine sand beds and laminae 13 Crevasse/splay complex 38 # Clay bed Upper very-fine silt with abundant very-fine sand laminae Rusty red/light grey fine sand with rip-up clasts Upper very-fine silt with abundant very-fine sand laminae Clay drapes Mud rip-up clasts up to 4 cm long Thick carbonaceous layer Lower-fine sand with clay drapes becoming more common towards top 42 Interbedded sands and clay with rare cross-15 stratified bds up to 5 cm thick. Sandy beds 1 - 5 cm, clay beds up to 2 cm Laminated massive clay package Planar tabulated cross stratified beds Clayey sand with clay drapes and rip-up clasts 45 Medium silt Crevasse channels and fills ခ Interbedded fine sand and clay bands \*Bed of clay rip-up clasts Concave and parallel clay drapes Light-grey medium sand with cross-stratified beds and minor clay content 48 Mottled rip-up clasts 3 - 4 cm long \* erosional base 1 cm thick rip-up clasts in pale-rusty medium sand Light-grey to red fine sand 49 Crevasse splay complex Mottled, FeO bands and staining, clay drapes 50 Intense red FeO staining Clay with silt interbeds, FeO staining Ø \* rusty-brown clay layer Laminated silts 51 FeO Interbedded clay with silty/sand lenses, streaks and beds. FeO staining in lenses & streaks FeO 52 \*Hummocks Ø 18 Ø 53 Abundant coarse silt laminations and very-fine sand lenses with ripples Missing core Ø Abundant coarse silt laminations and very-fine sand lenses with ripples Ø 55 Ø

Sandy lenses with FeO alterations, dark-grey and sticky clay laminations rare to common

Abundant laminations < 1 mm thick

laminations and sand lenses

Organic material common

Dark-brown to grey clay with thin sandy

Massive clay layer with rare sand lenses

Interbedded clay and poorly-sorted silty sand

erosional base

\*Coal lense

streaks < 0.5 mm

Ø

Ø

Ø

Ø

Ø

Missing core

Interbedded sand and silt/clay, rip-up clasts and

Lacustrine to prodelta

56

57

58

59