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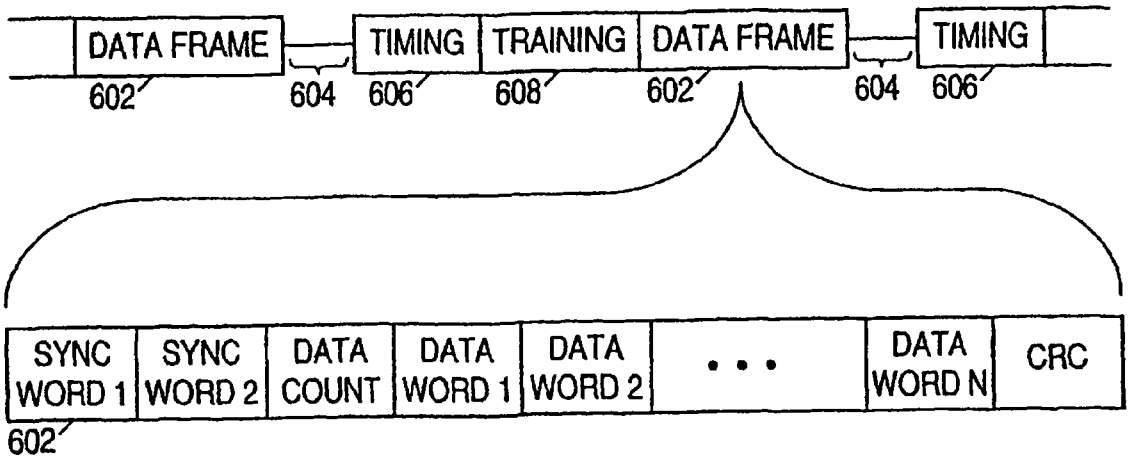
(54) Title: BURST QAM DOWNHOLE TELEMETRY SYSTEM



(57) Abstract: A downhole telemetry system that transmits a burst-QAM uplink signal to the surface of the well is disclosed. In a preferred embodiment, the well includes composite tubing having circumferentially-spaced electrical conductors helically wound within the walls of the tubing. A downhole instrument coupled to a pair of adjacent conductors transmits a burst-QAM uplink signal to a surface system similarly coupled to the pair of adjacent conductors. The burst-QAM signal, preferably comprises a series of data frames (602) carrying telemetry data. Each data frame is preferably preceded by a quiet interval (604) (when no signal is present), a timing synchronization sequence, and a training sequence (606, 608). The timing synchronization sequence is designed for easy timing recovery at the surface, and the training sequence is designed to aid the adaptation of the equalizer. The data frame itself preferably includes a synchronization field, a data count, and a checksum in addition to the data Direct digital synthesis is preferably employed to modulate the uplink signal.

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CORRECTED VERSIONS OF PAMPHLETS (Continued)

VERSIONS CORRIGÉES DE BROCHURES (Suite)

International Publication Numbers **Numéros de publication internationale**	**International Application Numbers** **Numéros des demandes internationales**	**Corrections**
WO 02/019030	PCT/US01/23680	page 1, description, replaced by a new page 1; due to late transmittal by the receiving Office page 1, description, remplacée par une nouvelle page 1; en raison de la transmission tardive par l'office récepteur
WO 02/046752	PCT/US01/46658	page 85, claims, replaced by a new page 85; after rectification of obvious errors as authorized by the International Searching Authority page 85, revendications, remplacée par une nouvelle page 85; après rectification d'erreurs évidentes autorisée par l'administration chargée de la recherche internationale
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CORRECTED VERSIONS OF PAMPHLET FRONT PAGES

VERSIONS CORRIGÉES DE PAGES DE COUVERTURE DE BROCHURES

Corrected front pages of pamphlets, identified below by their international publication number, have been published on the same date as the present issue of the PCT Gazette.

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WO 01/042677	PCT/NL00/00810	under (54) published title replaced by correct title sous le numéro (54) le titre publié remplacé par le titre correct
WO 01/043794	PCT/US00/33535	revised abstract received by the International Bureau after completion of the technical preparations for international publication abrégé révisé reçu par le Bureau international après achèvement de la préparation technique en vue de la publication internationale
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