Western Atlas International

ATLAS WIRELINE SERVICES

5" = 100'

PHOTON LOG
GRAVEL PACK SURVEY

FILE NO.

API NO.

COMPANY NORTHWEST NATURAL GAS
OREGON NATURAL GAS DEVELOPMENT CORP.
WELL IW33AC-3
FIELD MIST
COUNTY COLUMBIA STATE OR.

LOCATION:
1469.94' N & 1706.49' W
FROM THE SW CORNER OF:
SEC 3 TWP 6N RGE 5W

OTHER SERVICES
NONE

PERMANENT DATUM GL ELEV. 1075.1
LOGGING MEASURED FROM KB 11.5 FT. ABOVE P.D.
DRILLING MEASURED FROM KB

ELEVATIONS
KB 1086.6'
DF --
GL 1075.1'

DATE	12-06-90	
RUN	~~1~~ 2	
SERVICE ORDER	65508	
DEPTH-DRILLER	2696'	
DEPTH-LOGGER	2694'	
BOTTOM LOGGED INTERVAL	2690'	
TOP LOGGED INTERVAL	2400'	
TYPE FLUID IN HOLE	WATER	
SALINITY PPM CL.	-	
DENSITY LB/GAL.	-	
LEVEL	FULL	
MAX. REC. TEMP. DEG. F	-	
OPR. RIG TIME	1 HR	
EQUIP. NO. / LOC.	6399 | BAKS.	
RECORDED BY	M. HINDS	
WITNESSED BY	MR. THOMAS	

BOREHOLE RECORD

NO.	BIT	FROM	TO

FINAL PRINT

FOLD HERE

CASING RECORD

SIZE	WGT	FROM	TO
8 5/8"	32K55	SURF.	2600'
5 1/2"	?	2572'	2696'

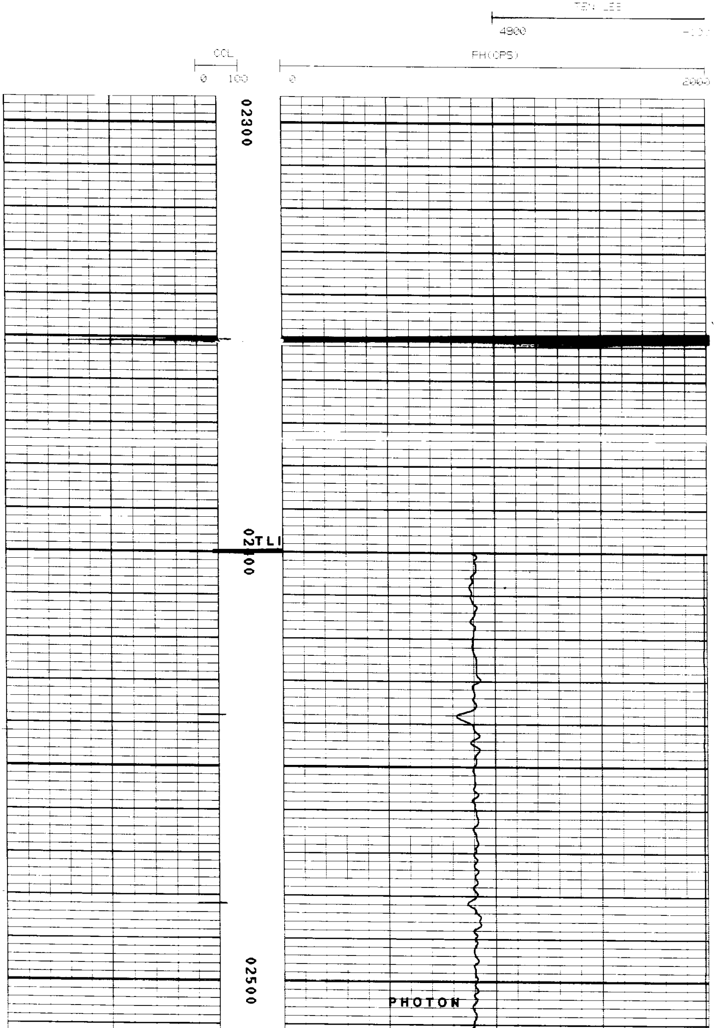
IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT, BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

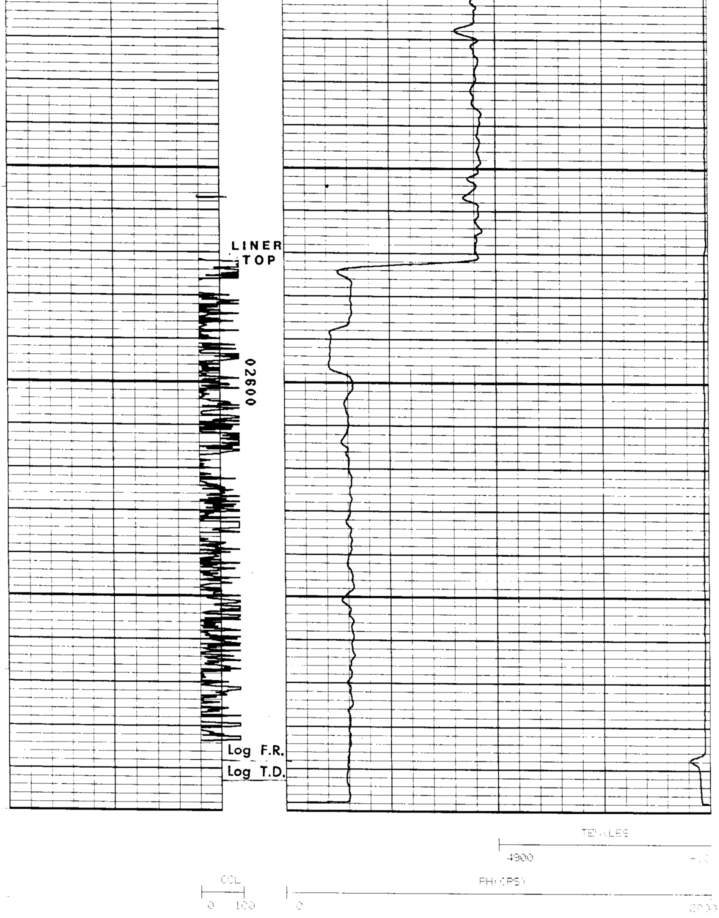
REMARKS RUN (1)

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIAL NO.	SERIES NO.	POSITION
1	1	PH	47491	1305XA	CENT
1	1	GR			
1	1	CCL	47491	2318XA	CENT.

```
**************************************************************************

                              FILE:  3

        CURVE  DELAY  REPORT
        --------------------

                                     PHYS.
                            CURVE    DELAY    UNITS
                            -----    -----    -----

                            PH          .0    FT.IN
                            GR         9.0    FT.IN
                            CCL        4.8    FT.IN


        PARAMETERS
        ----------

                              *** NONE ***


        DISPLAY SCALE CHANGES
        ---------------------

                              *** NONE ***

COMPANY:   OREGON NATURAL GAS DEVELOPMENT CORP.                  RUN: 1
 WELL NAME: [illegible]                                          TRIP: 1
SER. NO.:  [illegible]          FILE:   3          DATE: [illegible]    TIME: [illegible]
REVISION:  [illegible]                                           MODE: RECORD
```





FILE: 3

FILE: 3

CURVE DELAY REPORT

CURVE	PH 3. DELAY	UNITS
PH	0	FT,IN
GR	5,0	FT,IN
CCL	4,8	FT,IN

PARAMETERS

*** NONE ***

DISPLAY SCALE CHANGES

*** NONE ***

COMPANY: OREGON NATURAL GAS DEVELOPMENT CORP.

WELL NAME: IW33AD-3

SERVICE: PO451A

FILE: 3

DATE: 12 08 90

REVISION: FSYS256 REV:G002 VER:2.0

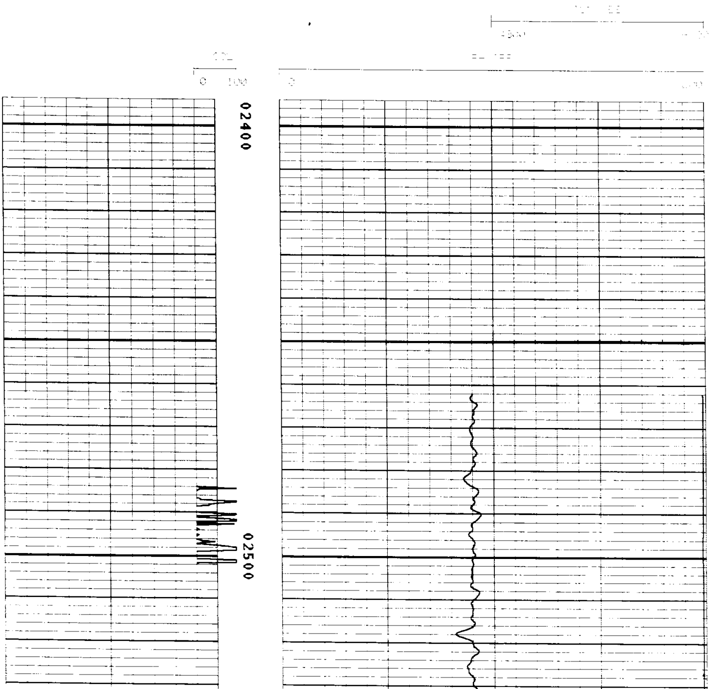
RUN: 1

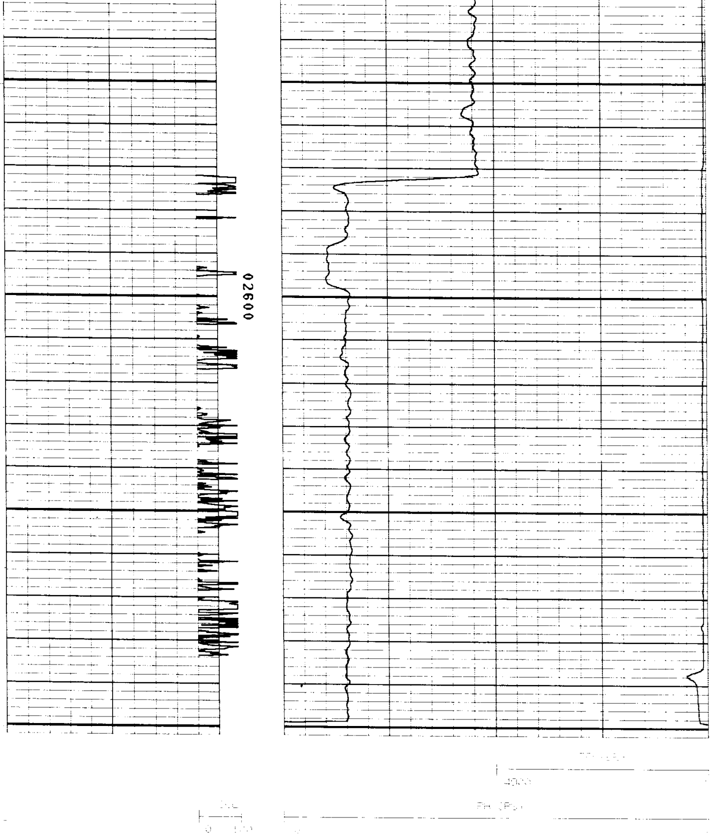
TRIP: 1

TIME: 13:34:03

MODE: RECORD

REPEAT SECTION





```
                    CALIBRATION VERIFICATION SUMMARIES
                    DATE [illegible]        TIME 14:08:14
                    RUN 1                   TRIP 1

      LOG NAME PH      [illegible]
 CALIBRATION ENTERED ON [illegible]

CURVE   COUNTS SEC.     SCALING FACTORS    ENGINEERING VALUES   UNITS
          LOW    HIGH    ADD.     MULT.       LOW        HIGH
 ---   -------------- ----------------- ------------------- -----

      DATE 12/06/90          CALIBRATION          TIME 11:27:58

PH          34.6   162.4     0.000     1.5642      0.000     200.000 API
```

```
                     PRIMARY VERIFICATION              NOT DONE

          DATE 12/06/90   BEFORE LOG VERIFICATION     TIME 11:34:34

R4        33.6   158.3     0.000     1.5849      52.834     247.783 API

          DATE 12/06/90    AFTER LOG VERIFICATION     TIME 14:08:29

R4        57.4   138.5     0.000     1.5842      53.838 ;   291.862 API
```