**Report “Lab 9”**

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# Oracle Architecture - Partitioning

I have created table with range partition:

CREATE TABLE EMP

(

EMPNO NUMBER (4) NOT NULL,

ENAME VARCHAR2 (10 BYTE),

JOB VARCHAR2 (9 BYTE),

MGR NUMBER (4),

HIREDATE DATE,

SAL NUMBER (7, 2),

COMM NUMBER (7, 2),

DEPTNO NUMBER (2)

)

PARTITION BY RANGE (HIREDATE)

(PARTITION emp\_part\_1

VALUES LESS THAN (TO\_DATE ('01-JAN-1982', 'DD-MON-RR'))

TABLESPACE ts\_example\_1,

PARTITION emp\_part\_2

VALUES LESS THAN (TO\_DATE ('01-JAN-1983', 'DD-MON-RR'))

TABLESPACE ts\_example\_2);

## Task 01: CREATE Example of Range partitioning

### Adding Partitions

I have added two partition to table EMP and inserted data into this table:

ALTER TABLE emp ADD PARTITION emp\_part\_3 VALUES LESS THAN (TO\_DATE('01-JAN-1984','DD-MON-RR' )) TABLESPACE ts\_example\_3;

ALTER TABLE emp ADD PARTITION emp\_part\_4 VALUES LESS THAN (TO\_DATE( '01-JAN-1985','DD-MON-RR')) TABLESPACE ts\_example\_4;

INSERT INTO EMP

(SELECT empno,

ename,

job,

mgr,

TO\_DATE (hiredate, 'DD.MM.RR'),

sal,

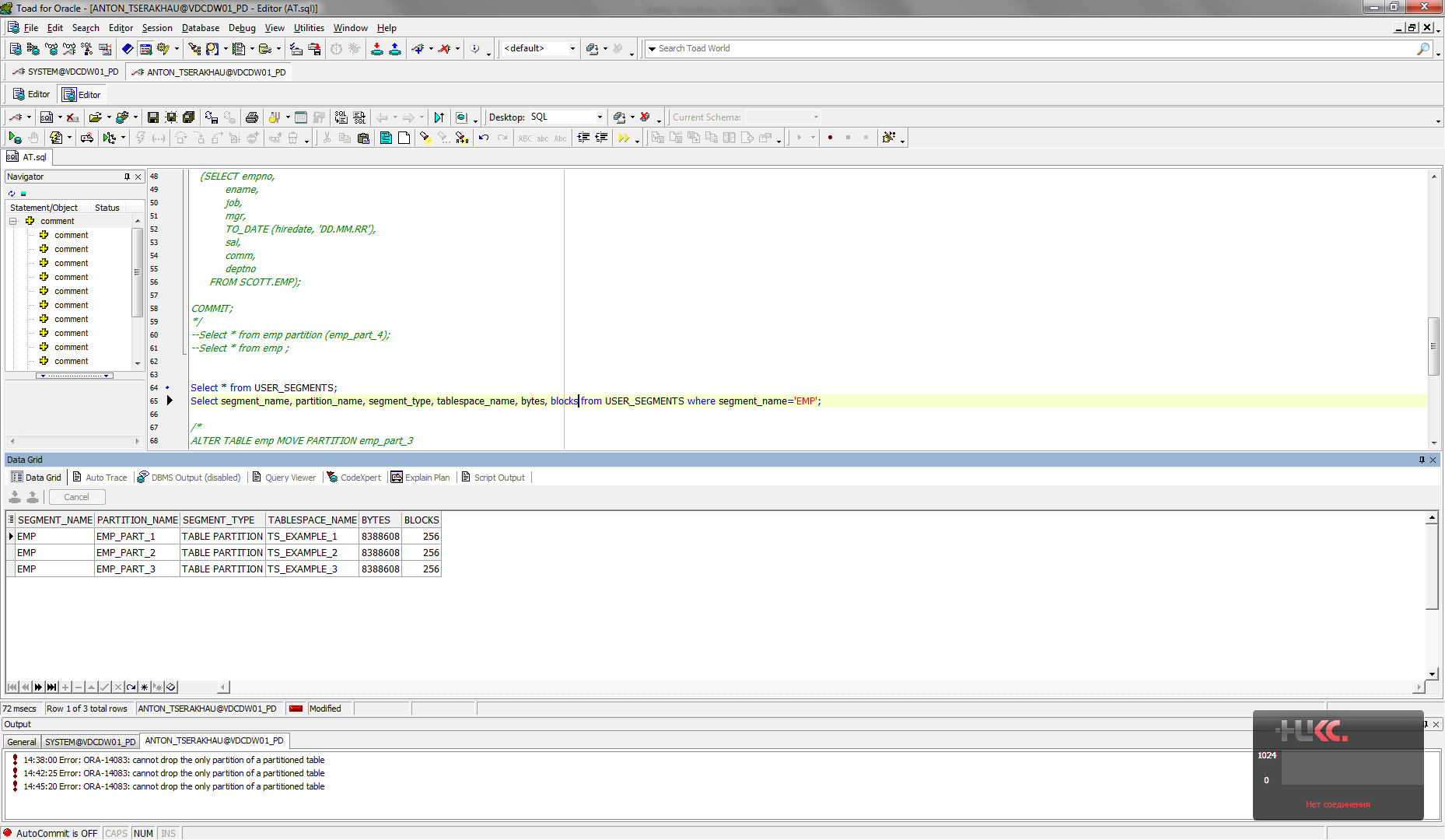
comm,

deptno

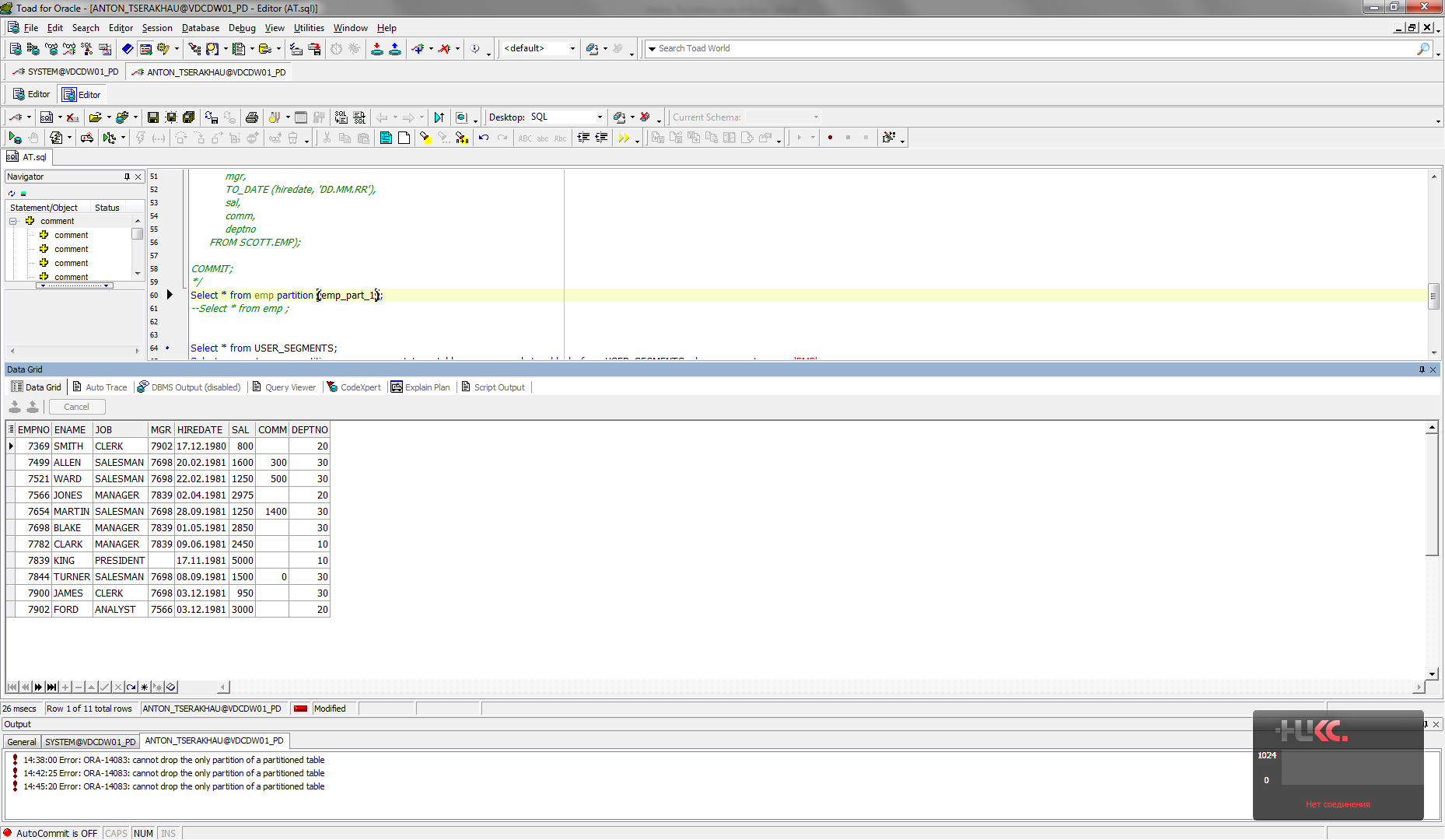
FROM SCOTT.EMP);

COMMIT;

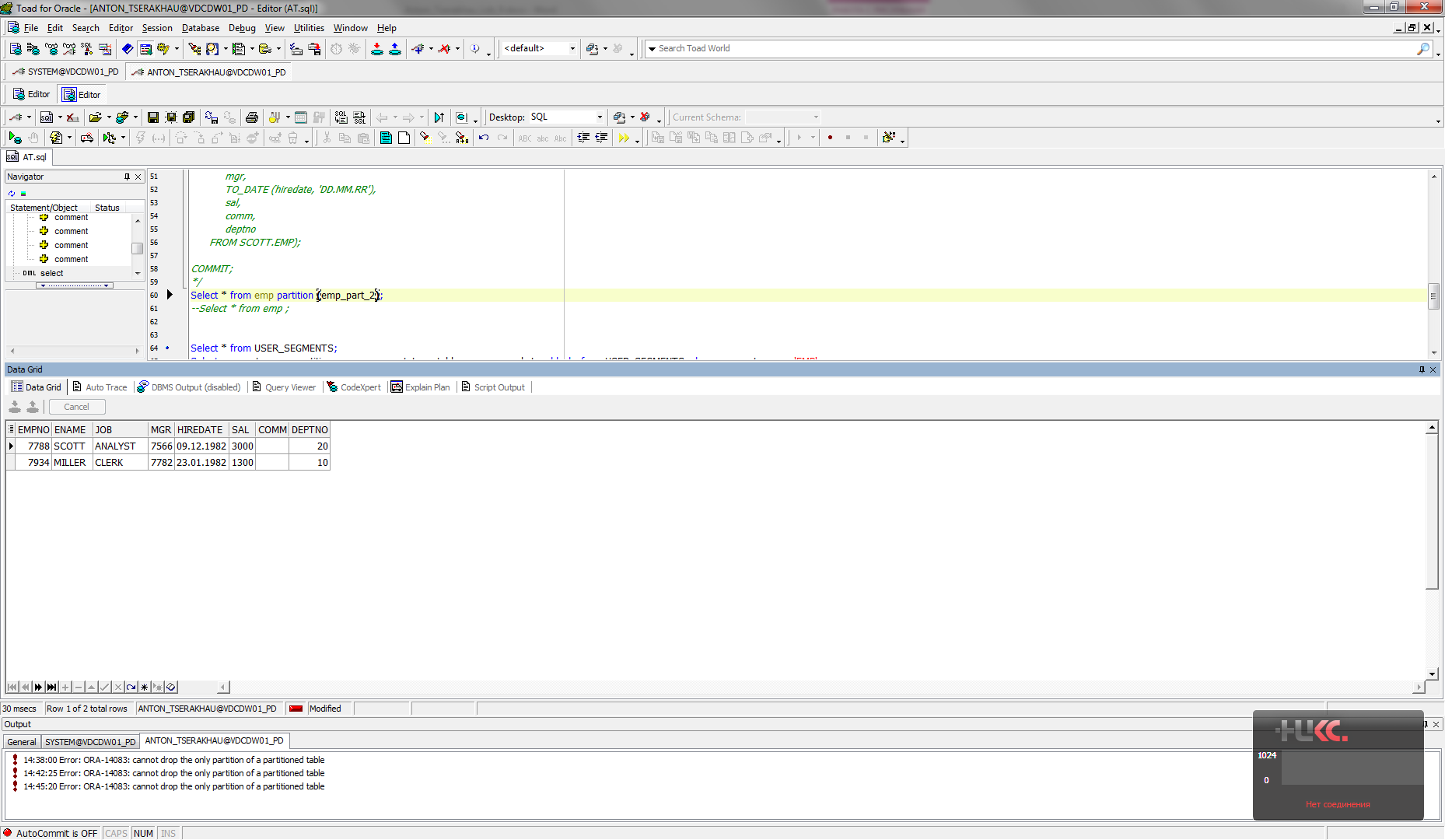
Result table:



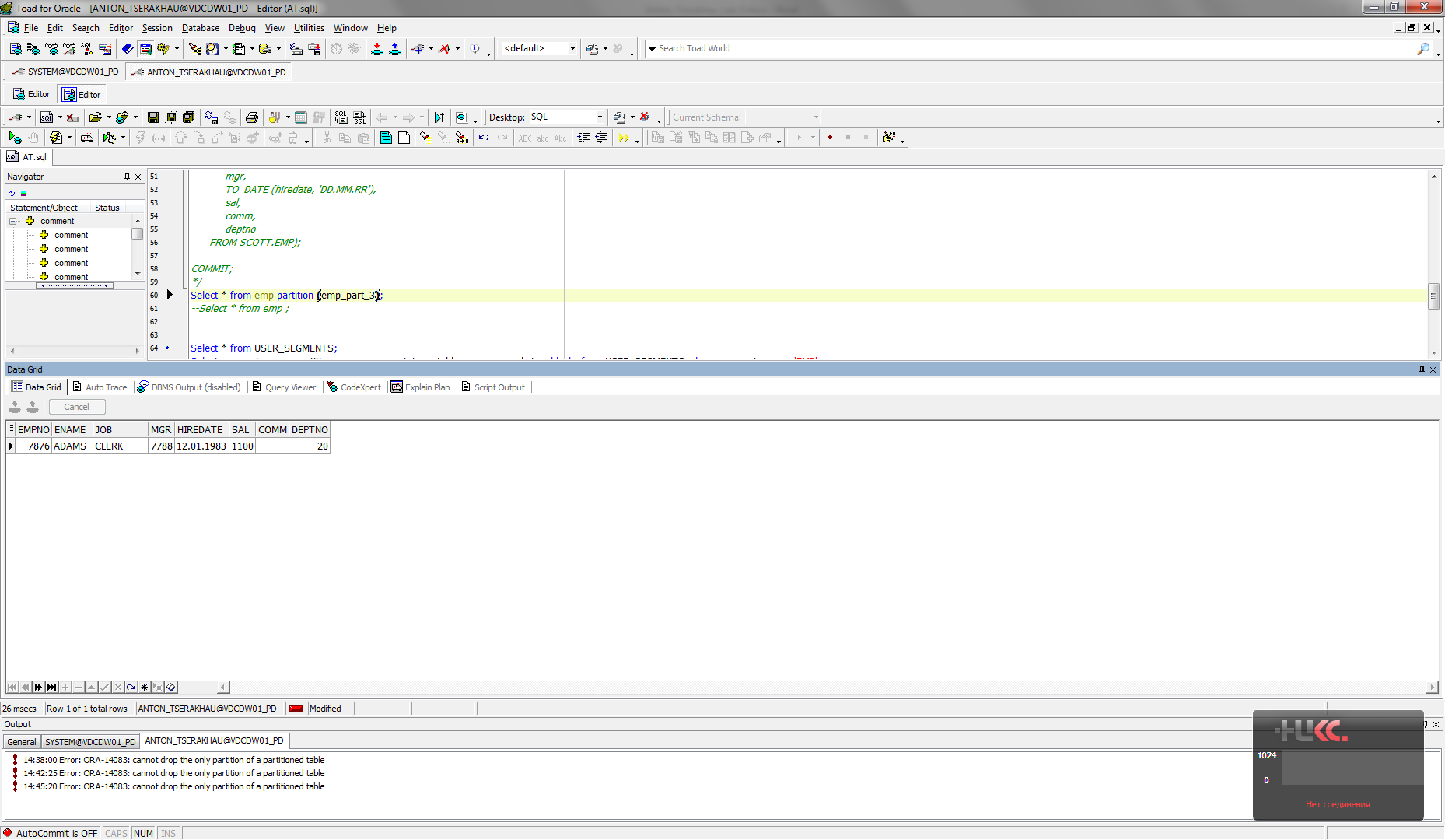
Partition EMP\_PART\_1:



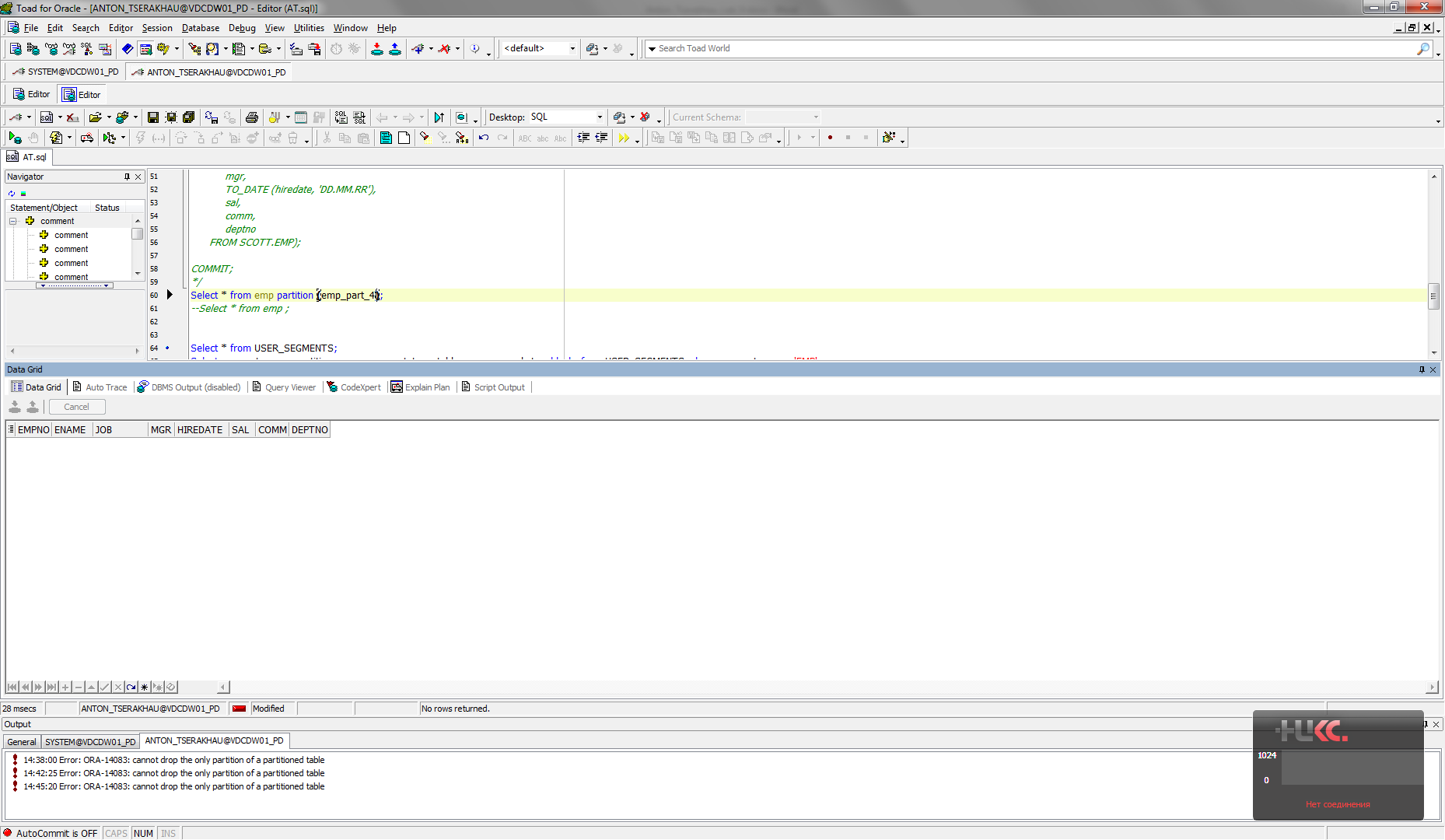
Partition EMP\_PART\_2:



Partition EMP\_PART\_3:



Partition EMP\_PART\_4:



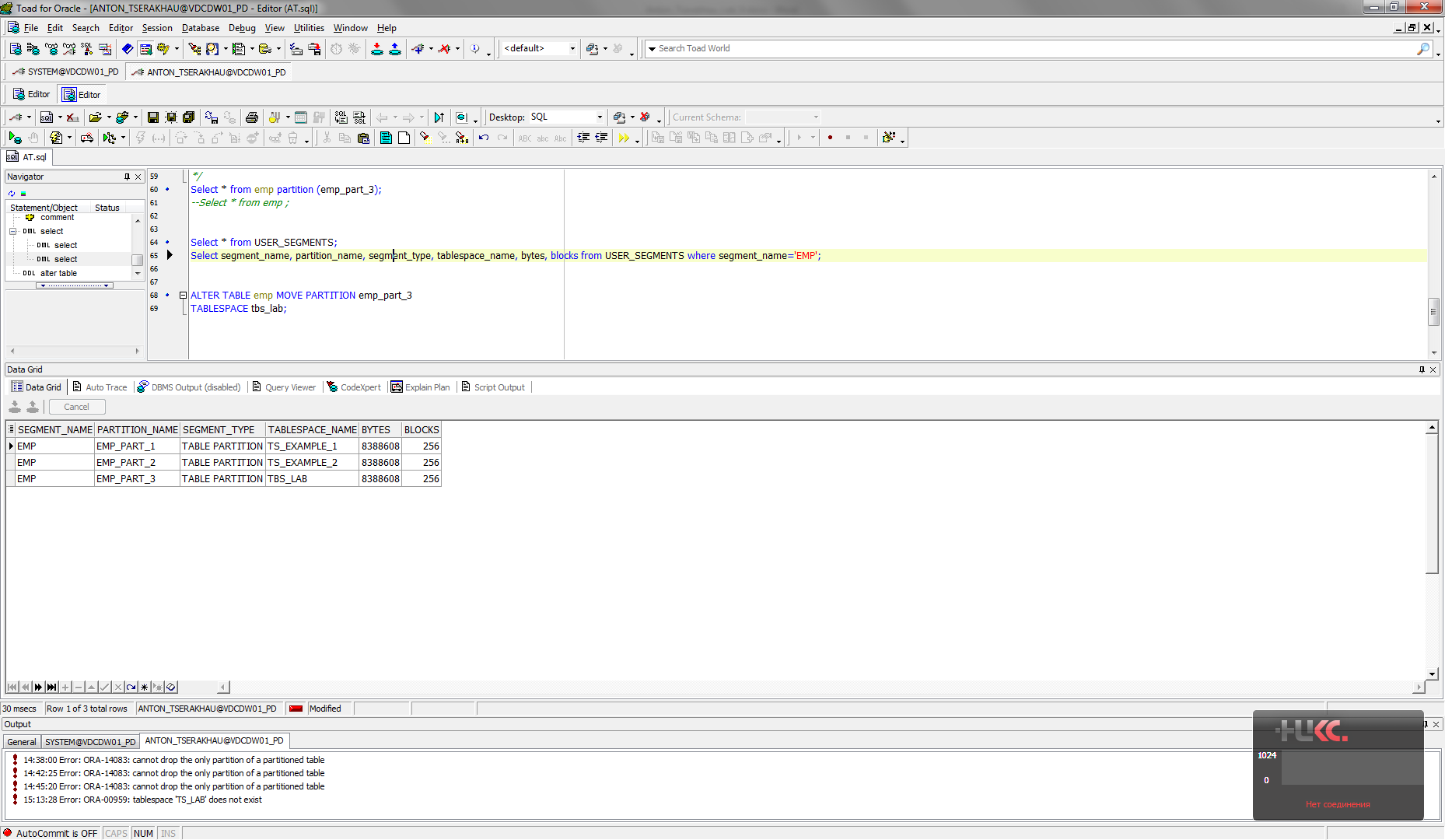
### Moving Partitions

I have moved partition EMP\_PART\_3 to other tablespace:

ALTER TABLE emp MOVE PARTITION emp\_part\_3

TABLESPACE tbs\_lab;

Result table:



### Splitting Partitions

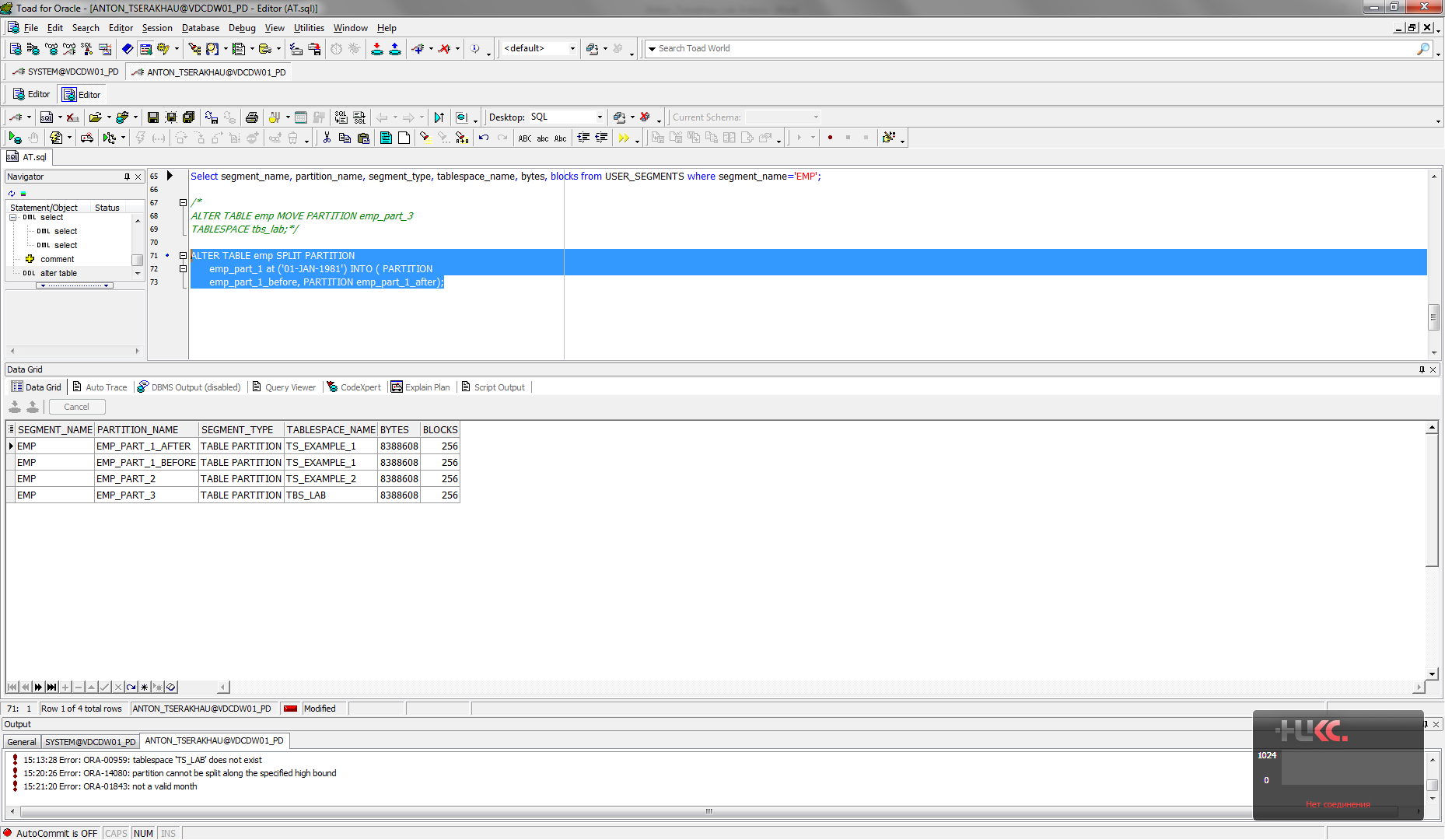
I have splited one partition EMP\_PART\_1 to two partitions EMP\_PART\_1\_BEFORE and EMP\_PART\_1\_AFTER:

ALTER TABLE emp SPLIT PARTITION

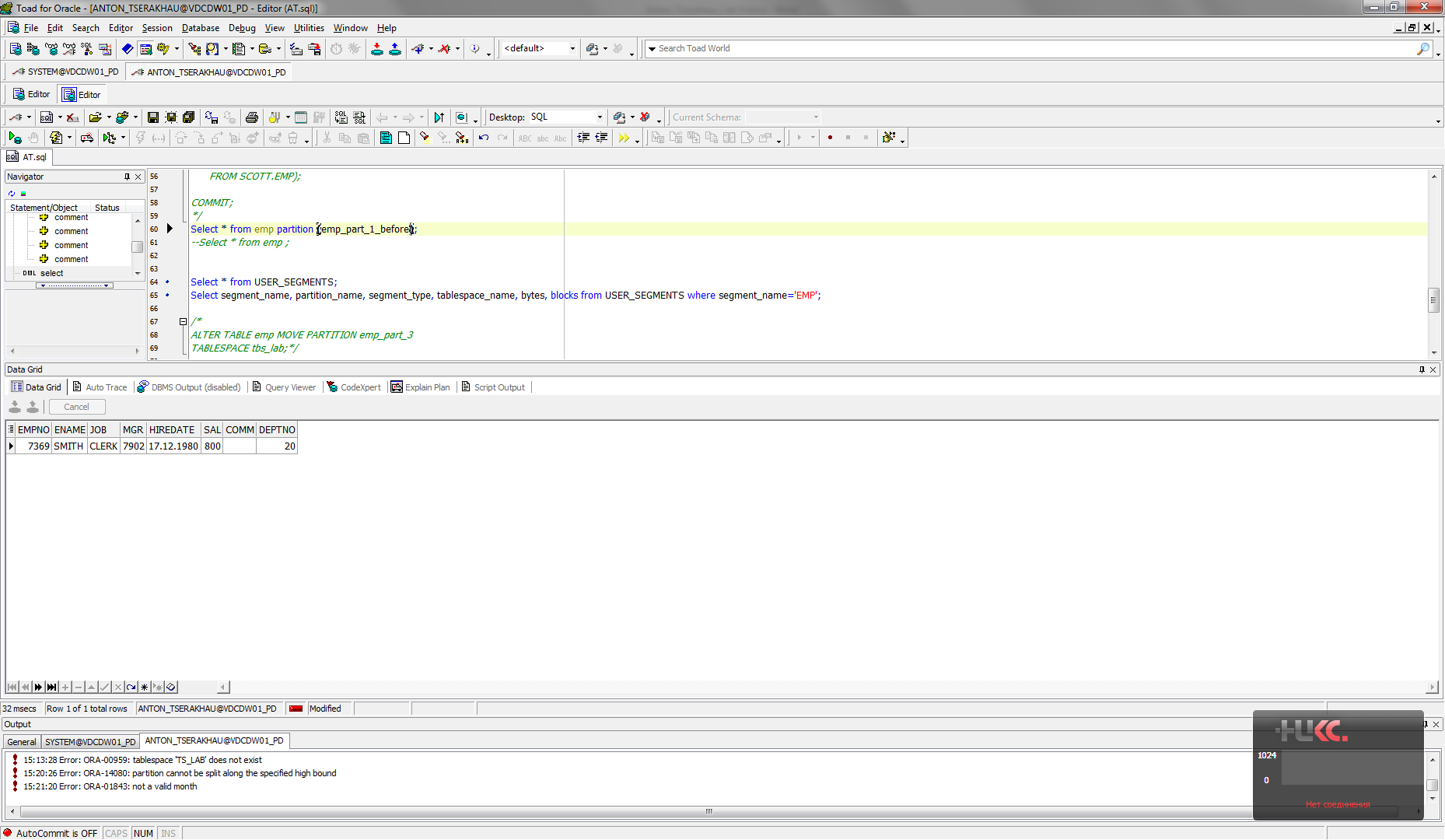
emp\_part\_1 at ('01-JAN-1981') INTO ( PARTITION

emp\_part\_1\_before, PARTITION emp\_part\_1\_after);

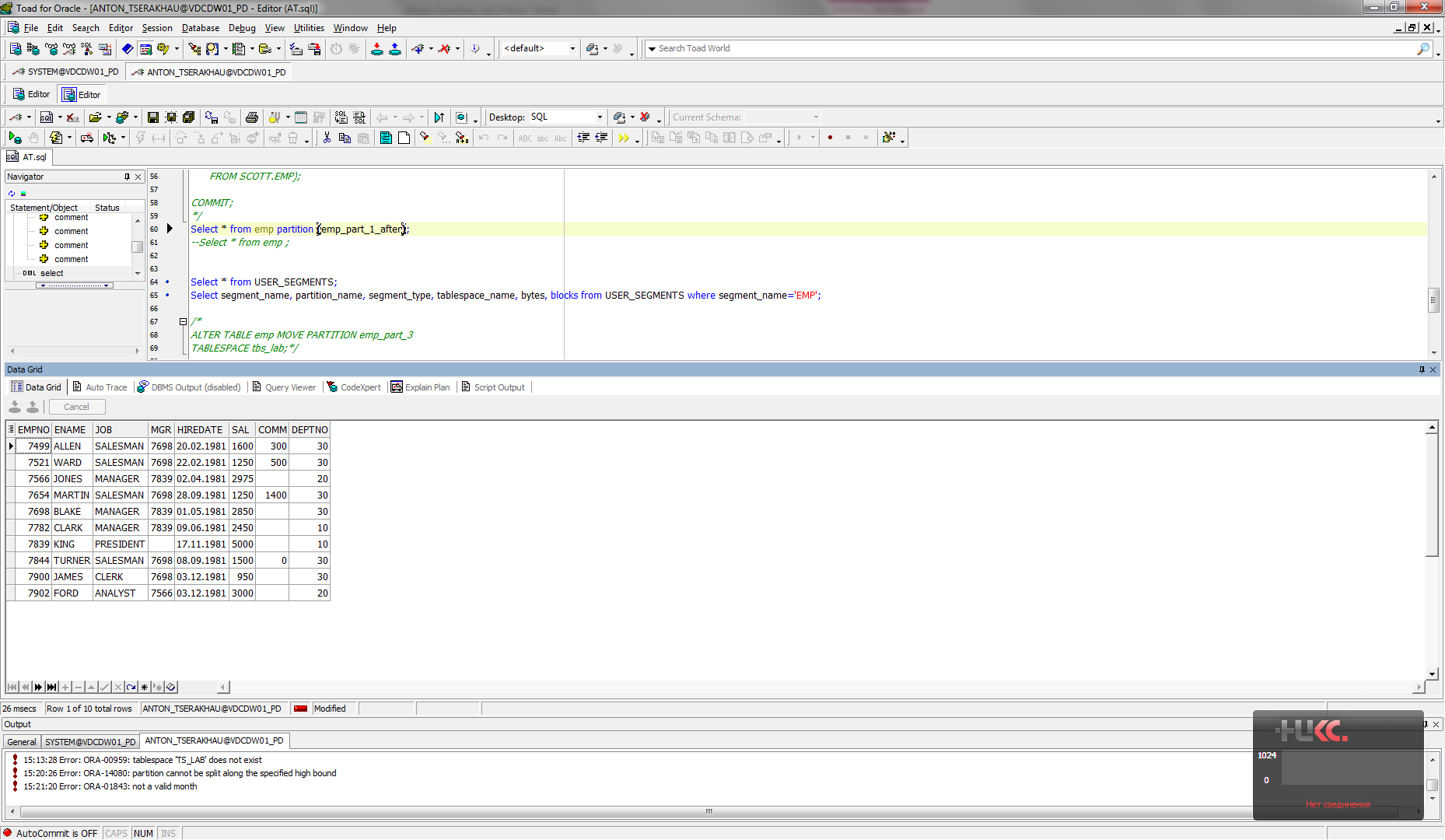
Result table:



Partition EMP\_PART\_1\_BEFORE:



Partition EMP\_PART\_1\_AFTER:



### Merging Partitions

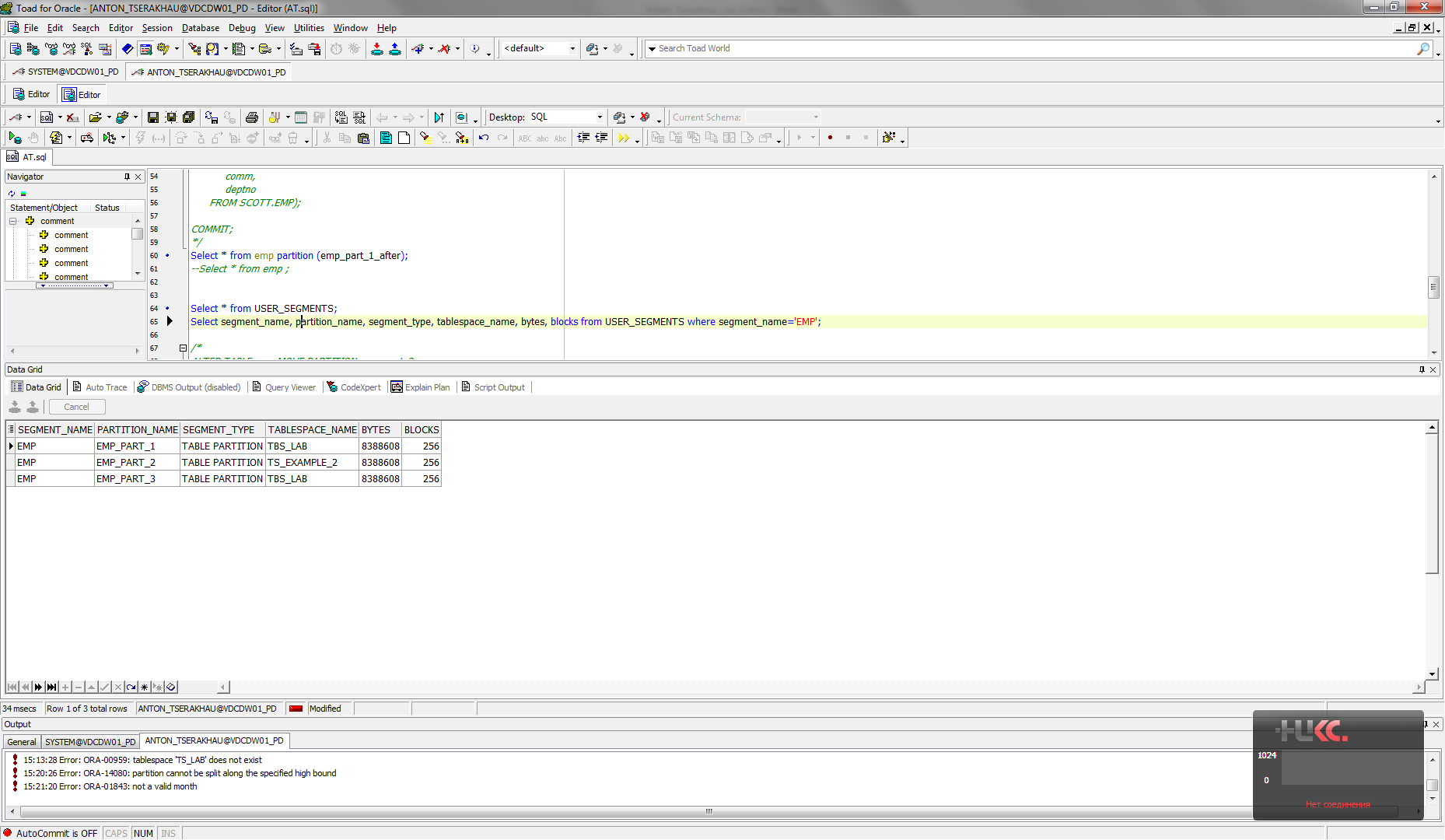
I have merged two partitions EMP\_PART\_1\_BEFORE and EMP\_PART\_1\_AFTER into one partition EMP\_PART\_1:

ALTER TABLE emp

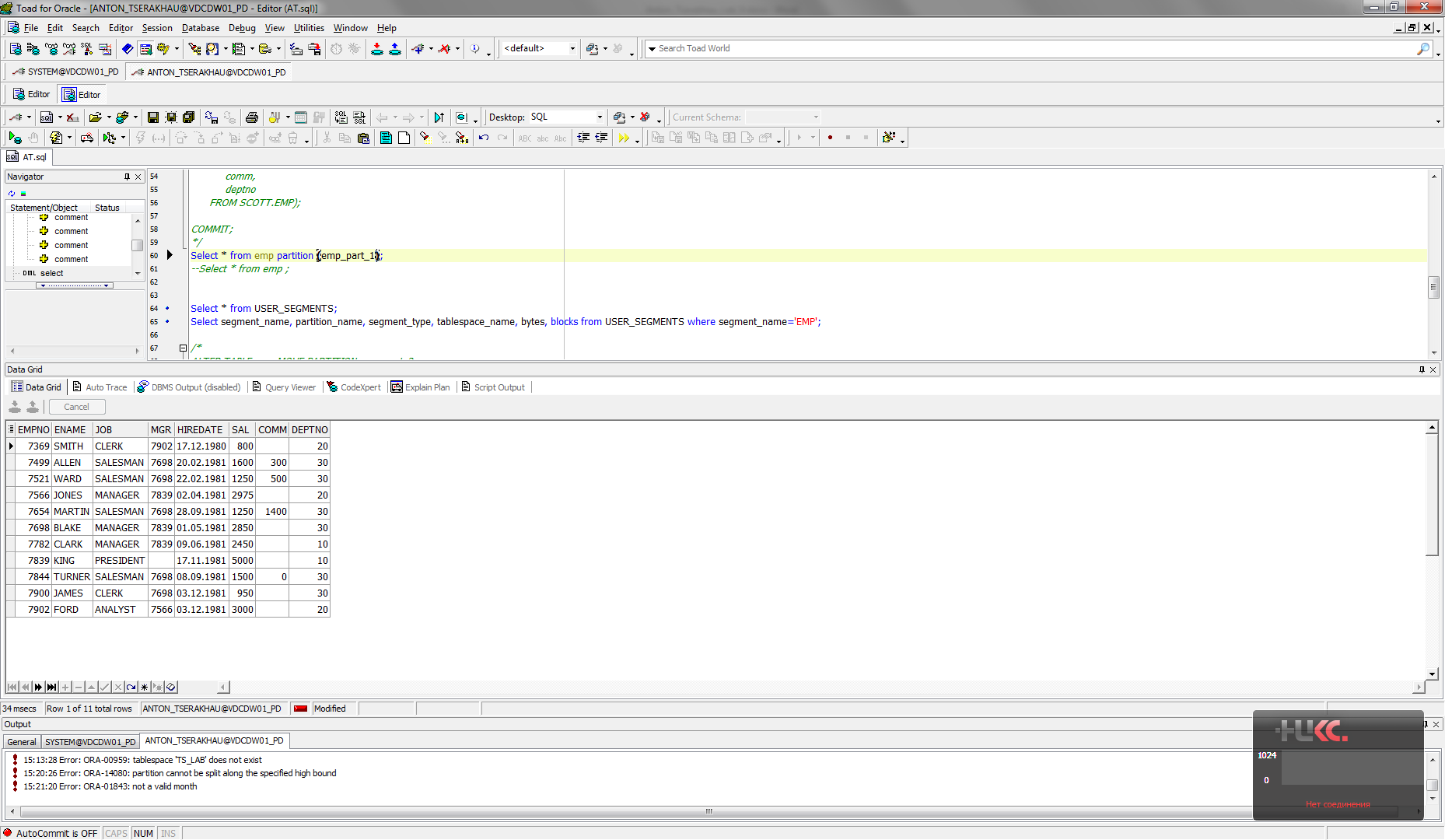
MERGE PARTITIONS emp\_part\_1\_before, emp\_part\_1\_after

INTO PARTITION emp\_part\_1;

Result table:



Partition EMP\_PART\_1:



### Truncating Partitions

I have truncated all partitions:

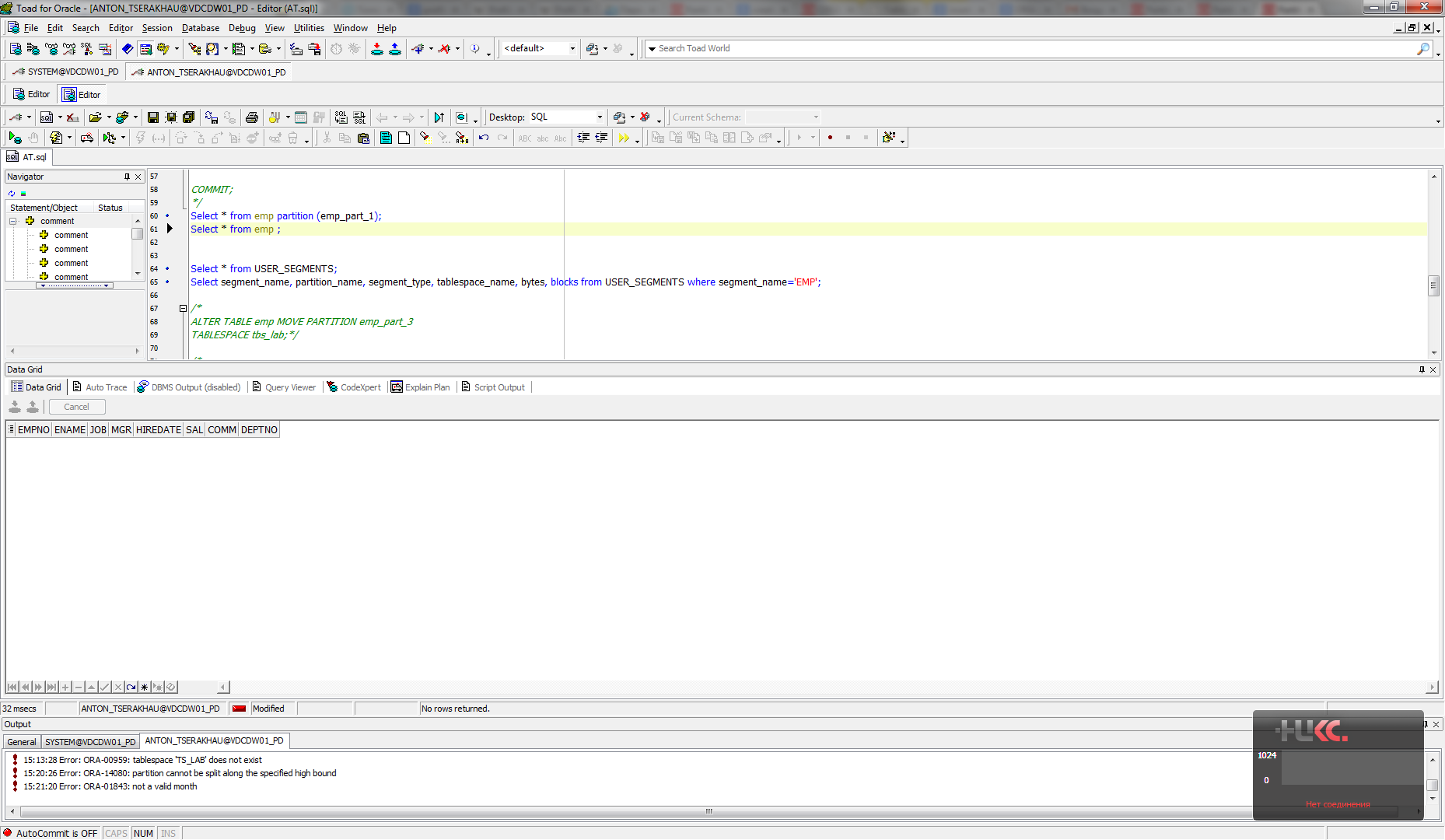
ALTER TABLE emp TRUNCATE PARTITION emp\_part\_1;

ALTER TABLE emp TRUNCATE PARTITION emp\_part\_2;

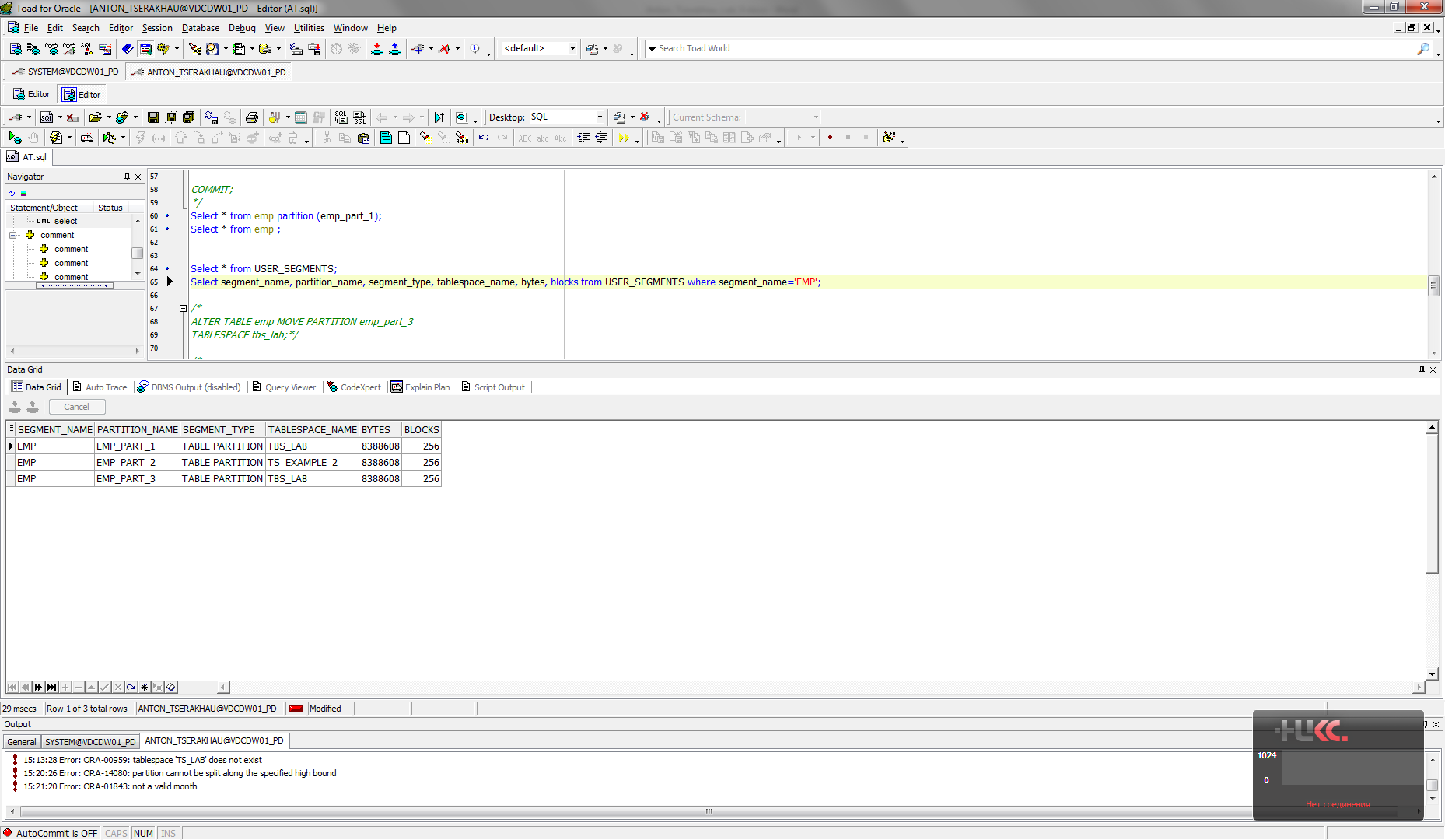
ALTER TABLE emp TRUNCATE PARTITION emp\_part\_3;

ALTER TABLE emp TRUNCATE PARTITION emp\_part\_4;

Table EMP(0 rows):



Result table:



### Dropping Partitions

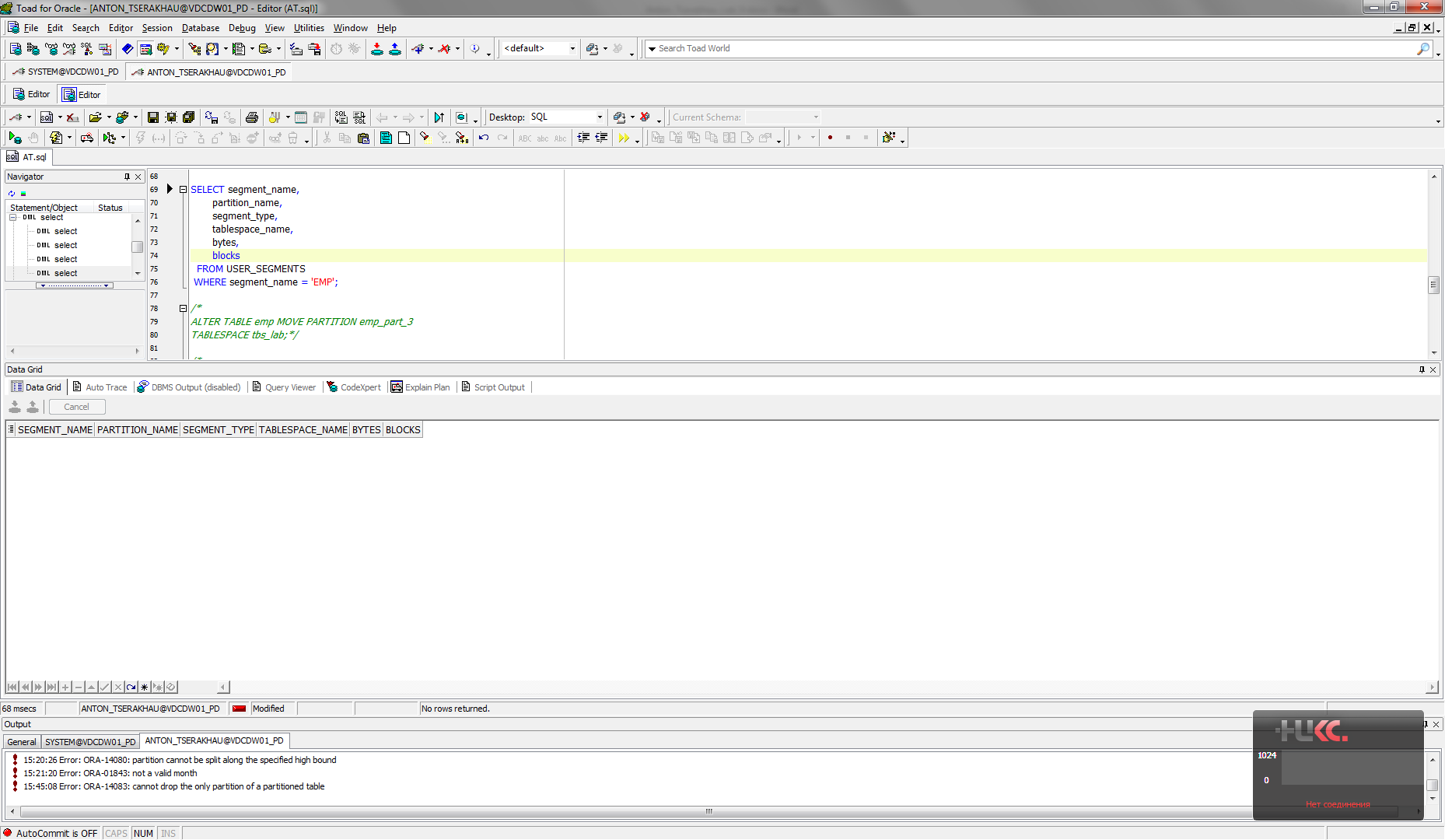
I have dropped 3 of 4 partitions (1 partition should remain, but at the same time it is empty):

ALTER TABLE emp DROP PARTITION emp\_part\_1;

ALTER TABLE emp DROP PARTITION emp\_part\_2;

ALTER TABLE emp DROP PARTITION emp\_part\_3;

Result table:



### Coalescing Partitions

I have created table with hash partition and inserted data:

CREATE TABLE DEPT

(DEPTNO NUMBER,

DNAME VARCHAR (32),

LOC VARCHAR (32))

PARTITION BY HASH (DEPTNO)

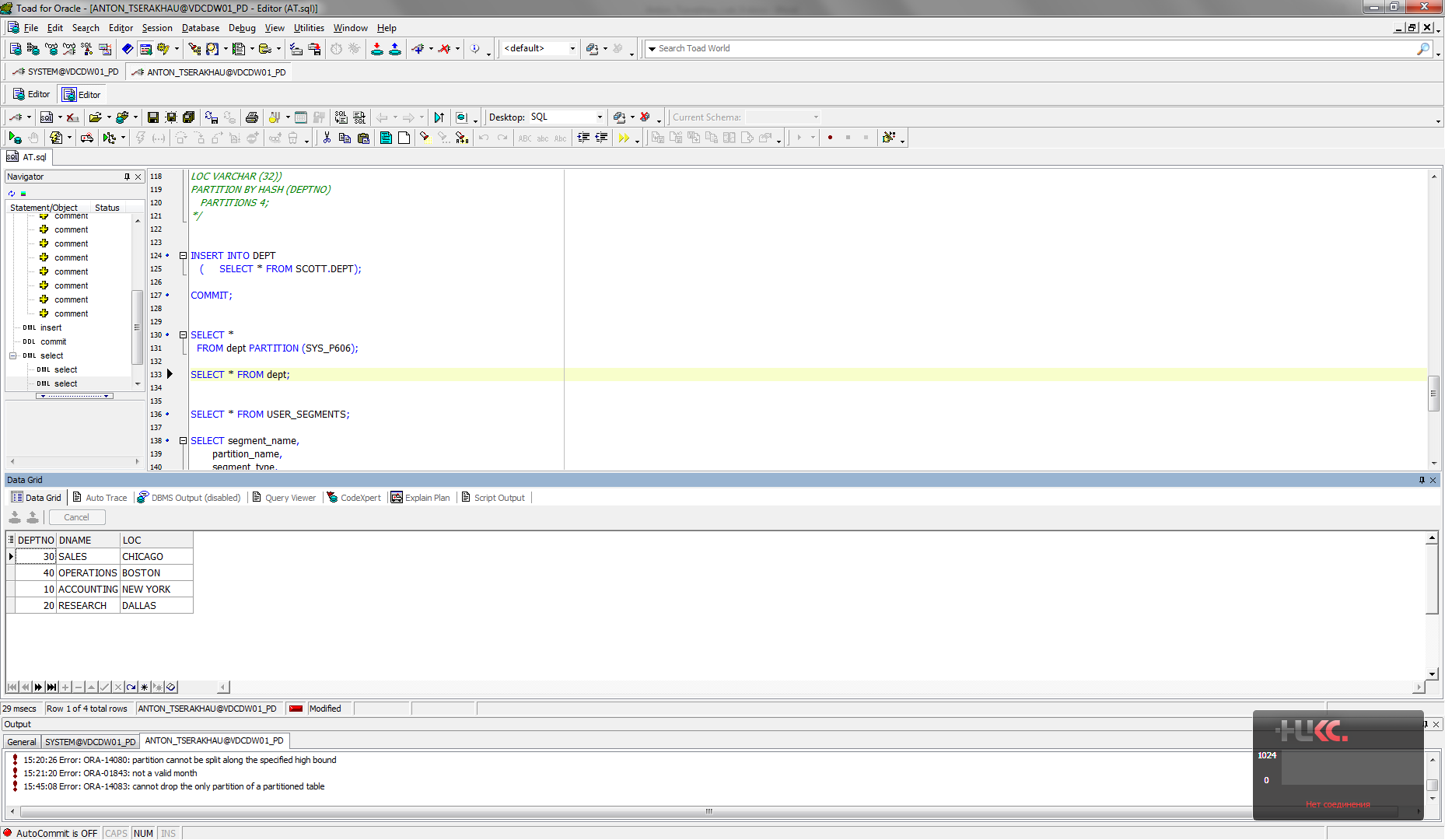
PARTITIONS 4;

INSERT INTO DEPT

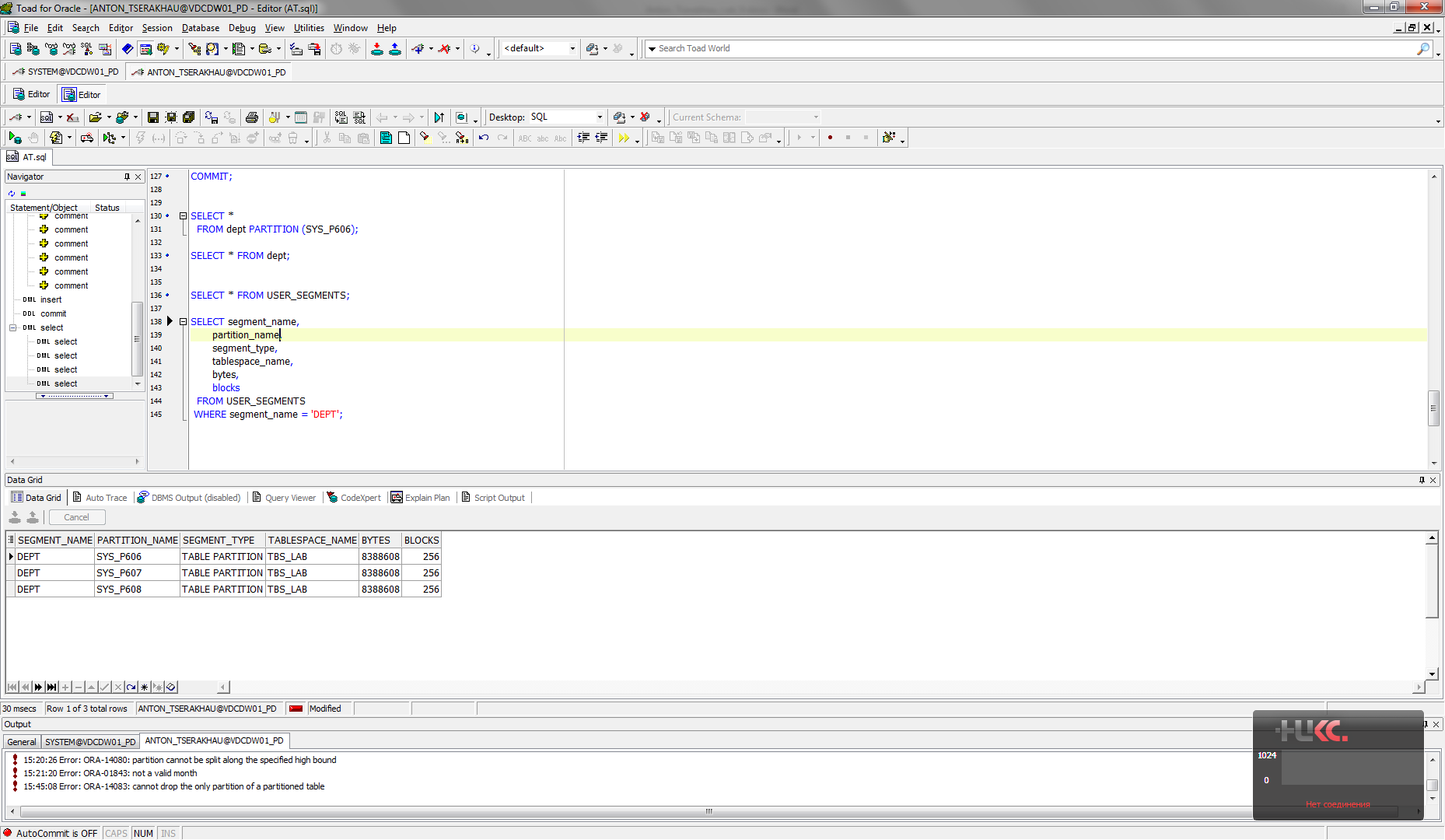
( SELECT \* FROM SCOTT.DEPT);

COMMIT;

Table DEPT:



Result table:



I have reduced partitions into table DEPT (lost only 2 of 4 partitions):

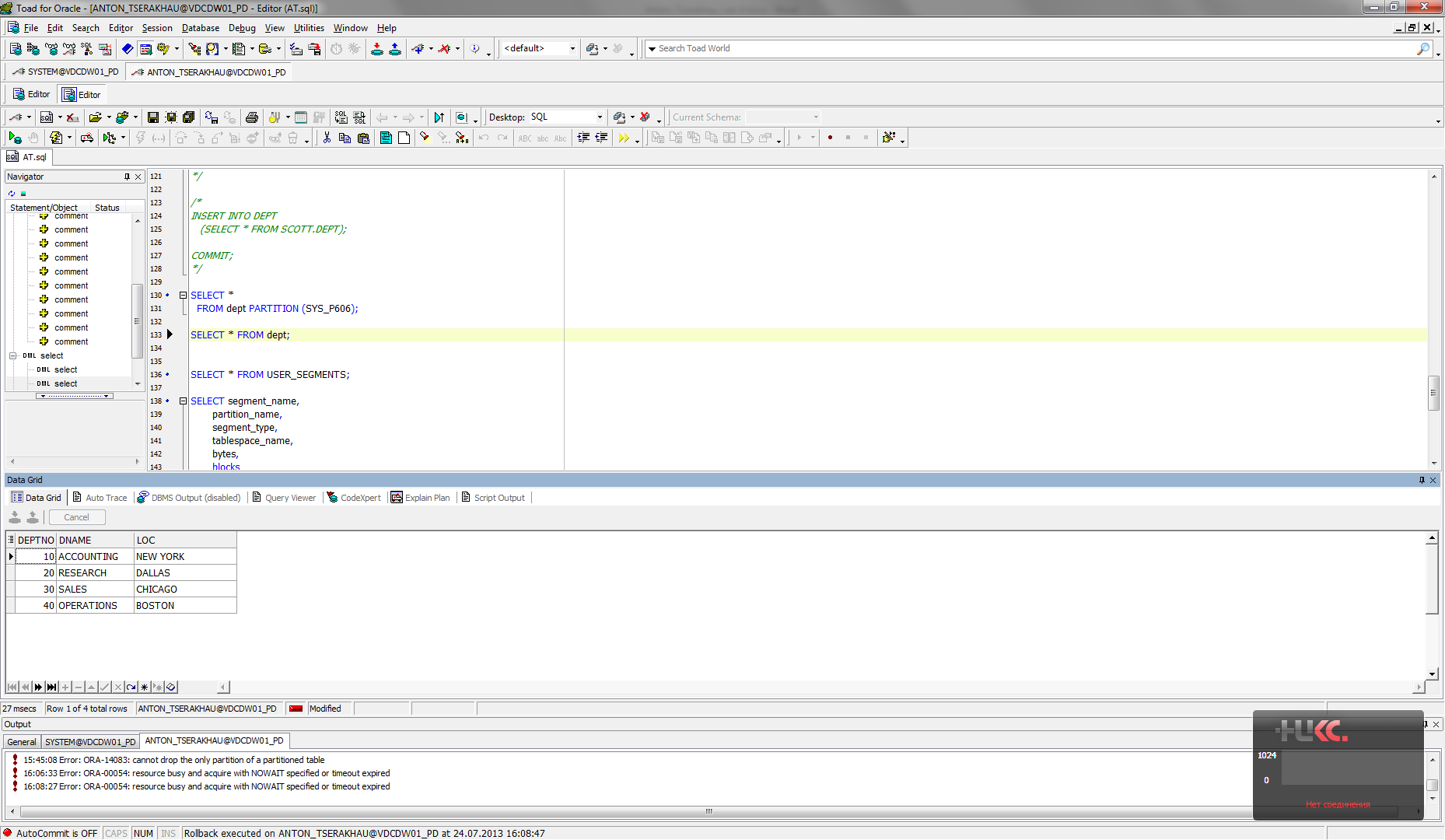
ALTER TABLE dept

COALESCE PARTITION;

ALTER TABLE dept

COALESCE PARTITION;

Table DEPT:



Result table:

