

```
entry:
    %0 = load i8**, i8*** %output_data_ptr, align 8, !tbaa !2
    %max_v_samp_factor = getelementptr inbounds %struct.jpeg_decompress_struct,
    ... %struct.jpeg_decompress_struct* %cinfo, i64 0, i32 58
    %1 = load i32, i32* %max_v_samp_factor, align 8, !tbaa !6
    %cmp33 = icmp sgt i32 %1, 0
    br i1 %cmp33, label %while.body.lr.ph, label %while.end!10
```

```
while.body.lr.ph:
    %output_width = getelementptr inbounds %struct.jpeg_decompress_struct,
    ... %struct.jpeg_decompress_struct* %cinfo, i64 0, i32 26
    br label %while.body
```

```
while.body:
    %indvars.iv37 = phi i64 [ 0, %while.body.lr.ph ], [ %indvars.iv.next38,
    ... %while.end ]
    %indvars.iv = phi i64 [ 0, %while.body.lr.ph ], [ %indvars.iv.next,
    ... %while.end ]
    %outrow.035 = phi i32 [ 0, %while.body.lr.ph ], [ %add9, %while.end ]
    %arrayidx2 = getelementptr inbounds i8*, i8** %0, i64 %indvars.iv
    %2 = load i8*, i8** %arrayidx2, align 8, !tbaa !2
    %3 = load i32, i32* %output_width, align 8, !tbaa !11
    %idx.ext = zext i32 %3 to i64
    %add.ptr = getelementptr inbounds i8, i8* %2, i64 %idx.ext
    %cmp430 = icmp eq i32 %3, 0
    br i1 %cmp430, label %while.end, label %while.body5.preheader
```

```
while.body5.preheader:
    %4 = ptrtoint i8* %2 to i64
    %arrayidx = getelementptr inbounds i8*, i8** %input_data, i64 %indvars.iv37
    %5 = load i8*, i8** %arrayidx, align 8, !tbaa !2
    %6 = zext i32 %3 to i64
    %scevgep = getelementptr i8, i8* %2, i64 %6
    %scevgep39 = getelementptr i8, i8* %2, i64 2
    %7 = icmp ugt i8* %scevgep, %scevgep39
    %umax = select i1 %7, i8* %scevgep, i8* %scevgep39
    %scevgep40 = getelementptr i8, i8* %umax, i64 -1
    %8 = sub i64 0, %4
    %scevgep41 = getelementptr i8, i8* %scevgep40, i64 %8
    %scevgep4142 = ptrtoint i8* %scevgep41 to i64
    %9 = lshr i64 %scevgep4142, 1
    %10 = add nuw i64 %9, 1
    %xtraiter = and i64 %10, 7
    %lcmp.mod = icmp eq i64 %xtraiter, 0
    br i1 %lcmp.mod, label %while.body5.preheader.split, label
    ... %while.body5.prol.preheader
```

```
while.body5.prol.preheader:
    br label %while.body5.prol
```

```
while.body5.prol:
    %inptr.032.prol = phi i8* [ %incdec.ptr.prol, %while.body5.prol ], [ %5,
    ... %while.body5.prol.preheader ]
    %outptr.031.prol = phi i8* [ %incdec.ptr7.prol, %while.body5.prol ], [ %2,
    ... %while.body5.prol.preheader ]
    %prol.iter = phi i64 [ %prol.iter.sub, %while.body5.prol ], [ %xtraiter,
    ... %while.body5.prol.preheader ]
    %incdec.ptr.prol = getelementptr inbounds i8, i8* %inptr.032.prol, i64 1
    %11 = load i8, i8* %inptr.032.prol, align 1, !tbaa !12
    %incdec.ptr6.prol = getelementptr inbounds i8, i8* %outptr.031.prol, i64 1
    store i8 %11, i8* %outptr.031.prol, align 1, !tbaa !12
    %incdec.ptr7.prol = getelementptr inbounds i8, i8* %outptr.031.prol, i64 2
    store i8 %11, i8* %incdec.ptr6.prol, align 1, !tbaa !12
    %prol.iter.sub = add i64 %prol.iter, -1
    %prol.iter.cmp = icmp eq i64 %prol.iter.sub, 0
    br i1 %prol.iter.cmp, label %while.body5.preheader.split.loopexit, label
    ... %while.body5.prol, !llvm.loop !13
```

```
while.body5.preheader.split.loopexit:
    %incdec.ptr7.prol.lcssa = phi i8* [ %incdec.ptr7.prol, %while.body5.prol ]
    %incdec.ptr.prol.lcssa = phi i8* [ %incdec.ptr.prol, %while.body5.prol ]
    br label %while.body5.preheader.split
```

```
while.body5.preheader.split:
    %inptr.032.unr = phi i8* [ %5, %while.body5.preheader ], [
    ... %incdec.ptr.prol.lcssa, %while.body5.preheader.split.loopexit ]
    %outptr.031.unr = phi i8* [ %2, %while.body5.preheader ], [
    ... %incdec.ptr7.prol.lcssa, %while.body5.preheader.split.loopexit ]
    %12 = icmp ult i8* %scevgep41, inttoptr (i64 14 to i8*)
    br i1 %12, label %while.end.loopexit, label
    ... %while.body5.preheader.split.split
```

```
while.body5.preheader.split.split:
    br label %while.body5
```

```
while.body5:
    %inptr.032 = phi i8* [ %inptr.032.unr, %while.body5.preheader.split.split ],
    ... [ %incdec.ptr7, %while.body5 ]
    %outptr.031 = phi i8* [ %outptr.031.unr, %while.body5.preheader.split.split
    ... ], [ %incdec.ptr7.7, %while.body5 ]
    %incdec.ptr = getelementptr inbounds i8, i8* %inptr.032, i64 1
    %13 = load i8, i8* %inptr.032, align 1, !tbaa !12
    %incdec.ptr6 = getelementptr inbounds i8, i8* %outptr.031, i64 1
    store i8 %13, i8* %outptr.031, align 1, !tbaa !12
    %incdec.ptr7 = getelementptr inbounds i8, i8* %outptr.031, i64 2
    store i8 %13, i8* %incdec.ptr6, align 1, !tbaa !12
    %incdec.ptr.1 = getelementptr inbounds i8, i8* %inptr.032, i64 2
    %14 = load i8, i8* %incdec.ptr, align 1, !tbaa !12
    %incdec.ptr6.1 = getelementptr inbounds i8, i8* %outptr.031, i64 3
    store i8 %14, i8* %incdec.ptr7, align 1, !tbaa !12
    %incdec.ptr7.1 = getelementptr inbounds i8, i8* %outptr.031, i64 4
    store i8 %14, i8* %incdec.ptr6.1, align 1, !tbaa !12
    %incdec.ptr.2 = getelementptr inbounds i8, i8* %inptr.032, i64 3
    %15 = load i8, i8* %incdec.ptr.1, align 1, !tbaa !12
    %incdec.ptr6.2 = getelementptr inbounds i8, i8* %outptr.031, i64 5
    store i8 %15, i8* %incdec.ptr7.1, align 1, !tbaa !12
    %incdec.ptr7.2 = getelementptr inbounds i8, i8* %outptr.031, i64 6
    store i8 %15, i8* %incdec.ptr6.2, align 1, !tbaa !12
    %incdec.ptr.3 = getelementptr inbounds i8, i8* %inptr.032, i64 4
    %16 = load i8, i8* %incdec.ptr.2, align 1, !tbaa !12
    %incdec.ptr6.3 = getelementptr inbounds i8, i8* %outptr.031, i64 7
    store i8 %16, i8* %incdec.ptr7.2, align 1, !tbaa !12
    %incdec.ptr7.3 = getelementptr inbounds i8, i8* %outptr.031, i64 8
    store i8 %16, i8* %incdec.ptr6.3, align 1, !tbaa !12
    %incdec.ptr.4 = getelementptr inbounds i8, i8* %inptr.032, i64 5
    %17 = load i8, i8* %incdec.ptr.3, align 1, !tbaa !12
    %incdec.ptr6.4 = getelementptr inbounds i8, i8* %outptr.031, i64 9
    store i8 %17, i8* %incdec.ptr7.3, align 1, !tbaa !12
    %incdec.ptr7.4 = getelementptr inbounds i8, i8* %outptr.031, i64 10
    store i8 %17, i8* %incdec.ptr6.4, align 1, !tbaa !12
    %incdec.ptr.5 = getelementptr inbounds i8, i8* %inptr.032, i64 6
    %18 = load i8, i8* %incdec.ptr.4, align 1, !tbaa !12
    %incdec.ptr6.5 = getelementptr inbounds i8, i8* %outptr.031, i64 11
    store i8 %18, i8* %incdec.ptr7.4, align 1, !tbaa !12
    %incdec.ptr7.5 = getelementptr inbounds i8, i8* %outptr.031, i64 12
    store i8 %18, i8* %incdec.ptr6.5, align 1, !tbaa !12
    %incdec.ptr.6 = getelementptr inbounds i8, i8* %inptr.032, i64 7
    %19 = load i8, i8* %incdec.ptr.5, align 1, !tbaa !12
    %incdec.ptr6.6 = getelementptr inbounds i8, i8* %outptr.031, i64 13
    store i8 %19, i8* %incdec.ptr7.5, align 1, !tbaa !12
    %incdec.ptr7.6 = getelementptr inbounds i8, i8* %outptr.031, i64 14
    store i8 %19, i8* %incdec.ptr6.6, align 1, !tbaa !12
    %incdec.ptr.7 = getelementptr inbounds i8, i8* %inptr.032, i64 8
    %20 = load i8, i8* %incdec.ptr.6, align 1, !tbaa !12
    %incdec.ptr6.7 = getelementptr inbounds i8, i8* %outptr.031, i64 15
    store i8 %20, i8* %incdec.ptr7.6, align 1, !tbaa !12
    %incdec.ptr7.7 = getelementptr inbounds i8, i8* %outptr.031, i64 16
    store i8 %20, i8* %incdec.ptr6.7, align 1, !tbaa !12
    %cmp4.7 = icmp ult i8* %incdec.ptr7.7, %add.ptr
    br i1 %cmp4.7, label %while.body5, label %while.end.loopexit.unr.lcssa
```

```
while.end.loopexit.unr.lcssa:
    br label %while.end.loopexit
```

```
while.end.loopexit:
    %pre = load i32, i32* %output_width, align 8, !tbaa !11
    br label %while.end
```

```
while.end:
    %21 = phi i32 [ %pre, %while.end.loopexit ], [ 0, %while.body ]
    %add = or i32 %outrow.035, 1
    %22 = trunc i64 %indvars.iv to i32
    tail call void @jcopy_sample_rows(i8** %0, i32 %22, i8** %0, i32 %add, i32
    ... 1, i32 %21) #4
    %indvars.iv.next38 = add nuw nsw i64 %indvars.iv37, 1
    %indvars.iv.next = add nuw nsw i64 %indvars.iv, 2
    %add9 = add nuw nsw i32 %outrow.035, 2
    %23 = load i32, i32* %max_v_samp_factor, align 8, !tbaa !6
    %24 = sext i32 %23 to i64
    %cmp = icmp slt i64 %indvars.iv.next, %24
    br i1 %cmp, label %while.body, label %while.end!10.loopexit
```

```
while.end!10.loopexit:
    br label %while.end!10
```

```
while.end!10:
    ret void
```